BOSTON MEDICAL LIBRARY IN THE FRANCIS A. COUNTWAY

More about the Influenza & its Treatment.

See page 233.

HEALTH

A WEEKLY JOURNAL OF

DOMESTIC AND SANITARY SCIENCE.

"Reason's whole pleasure—all the joys of sense—
Lie in three words, HEALTH, PEACE, and COMPETENCE."—*Pope.*

EDITED BY DR. ANDREW WILSON, F.R.S.E. &C.

VOL. XIV.—No. 353. FRIDAY, JANUARY 10, 1890. [PRICE TWOPENCE.

BRAND & CO.'S
INVALID
SOUPS,
Potted Meats,
PRESERVED
PROVISIONS, ETC.

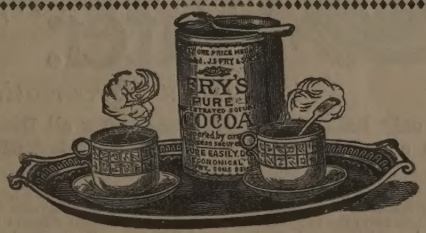
BRAND & Co.'s
PRESERVED PROVISIONS SOUPS & SPECIALTIES FOR INVALIDS
ESSENCES of BEEF, MUTTON, VEAL & CHICKEN. BEEF TEA, TURTLE SOUP & JELLY. MEAT LOZENGES &c.
SOLE ADDRESS No. 11 LITTLE STANHOPE ST. MAYFAIR. W.

BRAND & Co.'s
A1 SAUCE.
A fine Tonic and Digestive.
An excellent Relish for "Fish, Flesh, or Fowl."

Under the direct Patronage of the British, United States, Canadian, and other Governments.

ROWNTREE'S
"ELECT" COCOA
Characterized by PURITY, EXTRAORDINARY STRENGTH and DELICACY of FLAVOUR.
Is very ECONOMICAL, as 1 lb. will make over 120 cups of most DELICIOUS COCOA.
Highly commended by the *Lancet*, *British Medical Journal*, *Medical Press*, *Medical Record*, *Hospital Gazette*, *Illustrated Medical News*, and other influential organs; also, by many of the Faculty, and Drs. HASSALL and CLAYTON, and other analysts.
YORK, ENGLAND.

Fry's
PURE
CONCENTRATED
Cocoa

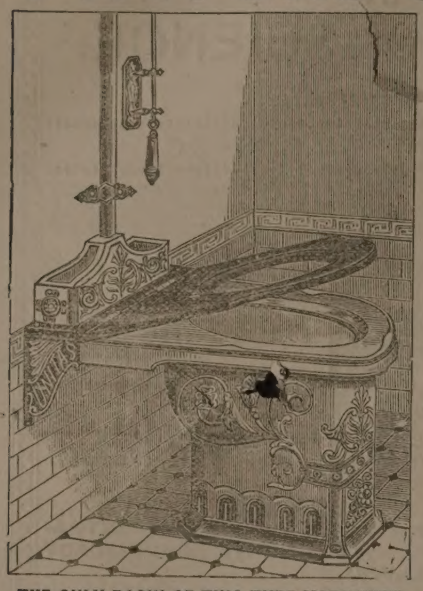


TRADE MARK.

LANCET.—"Pure, and very soluble."
MEDICAL TIMES.—"Eminently suitable for Invalids."
SIR C. A. CAMERON—"I have never tasted Cocoa that I like so well."
President Royal College of Surgeons, Ireland.

THE PERFECTION OF CLEANLINESS, UTILITY, AND SIMPLICITY.

TWYFORD'S 'UNITAS,'



THE ONLY BASIN OF THIS TYPE MADE WITH PERFECT FORMATION OF TRAP.

COMBINING

W.C. BASIN AND TRAP, URINAL AND SLOP SINK.

No Wood Fittings are required except a hinged seat, which, being raised, the Basin can be used as a Urinal or a Slop Sink, the "wetting," so objectionable in Closets having permanent seats being avoided. Free access can thus be had to all parts of the Basin and Trap, so that everything about the Closet can be easily kept clean.

Made in Fine Earthenware, Plain or Decorated, and in Strong Fire Clay.

The flushing arrangements are so perfect that with a flush of two gallons of water, it is guaranteed that all the soil and paper will be completely removed from the Basin and through the Trap, the whole of the inside being thoroughly washed, and with the aid of the Patent "After Flush" Chamber, the full quantity of water required to receive the soil is left in the bottom of the Basin.

For Prices and Catalogues apply to

TWYFORD,

Cliffe Vale Pottery, Hanley, Staffordshire.

TO MOTHERS! **WOODWARD'S**

"Gripe Water."

Used by Doctors in their own Families.

Or Infants' Preservative,

Is the only REALLY SAFE Remedy for all Disorders of Infants and Children, especially for difficult TEETHING. Prevents CONVULSIONS.

From a "Family Doctor," *Cassell's Magazine*:—"'Woodward's Gripe Water' is the only medicine of its kind I would feel justified in recommending, owing to its freedom from the narcotics which are almost constantly found in Soothing Mixtures for children, and which never fail to injure the future health of the poor child put under its influence."

1s. 1½d., all Chemists. London Depot: 489, OXFORD-STREET.

ROWLAND'S MACASSAR OIL

Known for nearly 100 years as the best Preserver of the Hair; it prevents Hair falling off or turning Grey; Strengthens weak Hair; eradicates Scurf and Dandriff; and renders the hair beautifully soft, pliable, and glossy. It contains no lead or mineral ingredients, and can also be had in a

GOLDEN COLOUR

For Fair-Headed Children or People. It is unsurpassed as a Brilliantine for the Beard, Whiskers, and Mustaches.

Sold in usual four sizes—3s. 6d., 7s., 10s. 6d., *and* 21s.

Ask anywhere for ROWLAND'S of 20, HATTON-GARDEN, and avoid spurious imitations.

MARINE HOTEL,

NORTH BERWICK, N.B.

(Twenty-two Miles from Edinburgh.)

FAMOUS SUMMER RESORT. Splendid Golfing Green. Sea Bathing. Sea Fishing, Boating, &c. Charming Excursions to the Bass Rock, Tantallon, and numerous Castles and Seats, and the well-known Links are a most delightful Promenade.

One of the finest Hotels in Scotland. Private Grounds; unrivalled Views; extensive system of Baths—fresh and salt water. *Cuisine* is well known for its uniform excellence. Table d'Hôte at separate tables, from 6.30 to 8.30. Post and Telegraph Office in the Hotel.

A. L. VOGEL, Manager,

And Proprietor of the New Hotel Splendide and Albemarle, Piccadilly, London.

IZOD'S PATENT CORSETS ARE THE BEST.

PREPARED BY A NEW AND SPECIAL SCIENTIFIC PROCESS.

Medical opinion recommends them **for the Health.** Public opinion all over the world unanimous that they are unsurpassed **for Comfort, Style, and Durability.** Sold all over Europe, and everywhere in India and the Colonies. Name and Trade Mark, Anchor, on every pair and box. Ask your Draper or Outfitter for **IZOD'S** make; take no other, and see you get them, as bad makes are often sold for sake of extra profit.

Write for our Sheet of Drawings.

E. IZOD & SON,

30, Milk-street, London.

Manufactory: LANDPORT, HANTS.

HEALTH

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, JANUARY* 10, 1890.

CONTENTS OF No. 353.

	PAGE
Notes by the Way. By the Editor.	229
Original Essays :—	
The Chemistry of the House. By Dr. Drinkwater, F.C.S.	230
Personal Health :—	
Some of the Recent Applications of Menthol	232
The Sting of the Jelly-Fish	232
More about the Influenza and its Treatment	233
Our Medicine Chest	234
A Remarkable Effect of Soap	235
Public Health :—	
The Notification of Infectious Diseases. By Arthur Whitelegge, M.D.	235
Popular Science Papers :—	
Recent Theories concerning Fever. By Dr. Austin Flint.	238
Caoutchouc	239
Jottings from the Journals :—	
Then and Now—Insensibility of Animals to Pain — Tinned Foods—Housing of the Working Classes	240-41
IMPORTANT ANNOUNCEMENT	242
Our Letter Box :—	
Rules for Correspondents	243
Queries and Answers :—Replies : General, Sanitary, and Medical	243

Notes by the Way

BY THE EDITOR.

"Health is the foundation of all our physical happiness."—*Herder.*

SPEAKING of the garter and varicose veins, a writer says that just as the garter has begun again to become an *objet de luxe* and to receive the thought and inspiration of the artistic mind, the sanitarian has put his foot down and said that the garter is a source of disease. By constricting the limb it impedes the flow of venous blood and leads to the production of varicose veins, swollen ankles, and other morbid conditions. Such has been the view taken at a recent discussion of the subject by English physicians. We fancy that the garter, like many other things of this life, may be a thing of beauty, or of evil; it may adorn loveliness, circumscribe angelic outlines, and support comfortably and artistically and healthfully the superior circumference of knit goods; or it may constrict, asphyxiate, and puff up sound and symmetrical limbs into varicose and variegated ugliness. Particularly among the lower classes, and in women of heavy-bodied build, do physicians see the evil effects of garters unwisely applied, and producing varicose veins with all their attendant discomfort. This represents, no doubt, the worst phase of the garter, and the class of cases in which it may do harm.

✿ ✿ ✿

BUT, as a rule, adds this account, the garter is a source of no disease. Varicose veins occur oftener in men than in women, and proportionately often in athletes and in men trained to severe exertion. There are many things, indeed, which cause them, and artificial constriction of the limbs seems to be a very remote and rare factor. In England we are told that the demand for "anti-varicose" stockings is chiefly made by full-fed men who lead sedentary lives and drink more wine than is good for them. A wearer of the anti-varicose stocking feels worse after a series of dinner-parties, when the tempting varieties of the *ménu* lead him to indulge too free in the pleasures of the palate. Obviously, no very bad case can be made out against the garter, provided it is a good garter, combining the maximum of support with the minimum of constriction, blending harmoniously with the hosiery and the circulation. The garter has come to stay; and the doctor had better prescribe a proper kind than preach its abolition.

✿ ✿ ✿

TOBACCO-SMOKING, in this country at least, says the *Lancet*, has till recently been regarded as one of the peculiar privileges of the male sex. Of late years, however, the habit has undergone certain important changes as regards the extent of its influence. It has attached adherents by the hundred from among the most youthful of the community, and it has, we might also say, in a great measure changed its sex. Many men, and these as capable, as active, and as worried as their fellows, have always been, and still are, found among the non-smokers; while, on the other hand, a belief seems to be growing that women are largely adopting tobacco in its more æsthetic forms as a feminine perquisite. To its therapeutic charm as an aid to digestion, a soother of worries, and a mild hypnotic, is added its alleged faculty of rendering women more companionable to their husbands or brothers who smoke. On such grounds its wider extension as a social custom has been strongly advocated by some, while others again repudiate it with equal warmth as a veritable poison of domestic womanhood.

✿ ✿ ✿

THE question, indeed, is incapable of settlement on purely physiological grounds. It may be freely granted that tobacco does in some degree yield that artificial nerve-rest which is claimed for it; but this will not suffice to silence objection, for its use by the smoker is more than a mere therapeutic method. Like every other luxury, it carries with it something of the slavery of indulgence, and this to an extent not known in the case of the simpler restoratives. While, therefore, we admit that its moderate use is in many instances not only practically harmless but even beneficial, we cannot allow that its general adoption is at all necessary or likely to prove advantageous. What is true regarding its effect upon men is even more applicable to its influence on women. The companionship of the sexes has, in our opinion, little to gain from the fragrant weed. Concord of the kind suggested is, after all, but a gross bond of union, and the finest common influence we would say is here, as in many other things, not that of "like to like," but of "like in difference."

✿ ✿ ✿

THANKS to the folly of mankind, says a writer, the position of alcohol as a mischief-worker and destroyer of health is at least as eminent as that which belongs to it in virtue of its right and judicious use. We do not need to remind our readers that it has for long wrought, probably more for evil than for good, under other names than those under which we in this country recognize its familiar combinations. Under a variety of titles it exerts its influence as the potent body of the various liqueurs so common on the Continent. These contain, it is true, other ingredients of more or less stimulant character, but they owe their highly intoxicant qualities without doubt to the presence of a large percentage of alcohol. A fact which is not so generally known has, however, been brought to light in some recent returns, which prove that such apparently harmless compounds as "bitters" and "tonics" are also commonly alcoholic in a high degree. Samples examined have revealed the presence of alcohol to an amount varying from twenty to over forty per cent.

OF the legion of adulterations more or less poisonous which have been from time to time introduced into intoxicating beverages our space will not permit us to speak. It is probable that in this case the real stimulant is often the lesser evil. In the presence of such evidence as this, there can be no question that the machinery of official inspection must be made to work with considerably greater nicety than hitherto, if even one desirable end—the purity of known intoxicants—is to be assured. A somewhat simpler task, though until recently but little suspected, also presents itself to them, and to the too-confiding public—this is the detection and exposure of the fraud implied in selling strongly-intoxicant "non-alcoholic bitter tonics."

❖ ❖ ❖

DR. MEURER, of the Lyons Ophthalmic Clinic, warns medical men against the practice of ordering their patients who may require artificial eyes to get those made of celluloid. Such eyes are cheap, it is true, and have a good appearance. At first, too, they seem to suit very well, but after three or four months they appear to undergo some chemical change and set up a serious amount of irritation. He has repeatedly seen this inflammation disappear on the removal of the celluloid eye by means of simple antiseptic treatment; reappearing, however, as soon as the old eye was put in again, but remaining absent if a glass eye was substituted.

❖ ❖ ❖

TEETH, it should be noted, are just as easily starved to death as the stomach. It is the outside of all the grains, of all the cereal foods, that contains the carbonate and the phosphate of lime and traces of other earthy salts which nourish the bony tissue and build up the frame It is the outside of corn, oats, wheat, barley, and the like, or the bran, so called, that we sift away and give to the swine, that the teeth actually require for their proper nourishment. Oatmeal is one of the best foods supplying the teeth with nourishment. It makes the dentine, cementum and enamel strong, flint-like, and able to resist all forms of decay. If you have children, never allow white bread on the table. Bread made of whole wheat, ground, not bolted, so that the bran which contains the minute quantities of lime is present, is best. To make a good, wholesome, nourishing bread, take too bowls of wheat meal and one bowl of white or bolted flour, and make by the usual process. Nothing is superior to brown bread for bone and tooth building. This is made out of rye meal and corn meal. Baked beans, too, have a considerable supply of these lime salts, and should be on your table, hot or cold, three times a week. In brushing the teeth, always brush up and down from the gums instead of across. Brush away from the gums and on the grinding surface of the teeth.

❖ ❖ ❖

THE treatment of ingrowing nail with tin-foil has its adherents. Dr. Theodore Clemens recommends the following procedure: After thoroughly cleansing the diseased parts with soap and water, and then drying, the edges of the nail are covered with one or two layers of tin-foil. The strips of tin-foil are held in position by a thin layer of yellow wax, care being taken to place the strips on all places where the nail is in contact with the flesh. This packing need only be renewed two or three times during the first few weeks, the procedure being simple, painless, and easily carried out by the patient.

Original Essays

"Life is not to live, but to be well."—*Martial.*

THE CHEMISTRY OF THE HOUSE.

(SECOND SERIES.)

BY DR. DRINKWATER, F.C.S.,
Lecturer on Chemistry in the Edinburgh Medical School.

FIRST PAPER.

THE AIR WE BREATHE.

IT would have been, perhaps, better had we considered the chemistry of our atmosphere before taking up other subjects, for the atmosphere is nature's laboratory, in which all great changes connected with animal and vegetable life are carried on, and one in which all the various chemical operations we have already studied, exhibit their analogies. The importance of our atmosphere depends, not only on its constituents, but on the power these constituents have of influencing health, climate, and even the social condition of mankind. Without atmospheric air we could not exist, plants could not flourish, fire and combustion would be unknown, rain would not fall; nor would the inhabitants, if there could be such persons, under the circumstances receive the heat and light of the sun in the way they now do. Air is a mixture of a number of gaseous bodies, containing besides watery vapour, dust particles and living organisms of microscopic size. Although the constituents may vary to a slight extent in different localities, yet in the main the composition is fairly constant.

Before proceeding further, it will, perhaps, be as well to give an average analysis of atmospheric air, representing the composition of a hundred volumes.—

COMPOSITION OF ATMOSPHERIC AIR.

Oxygen	20·61
Nitrogen	77·95
Carbonic acid gas	·04
Watery vapour	1·40
Nitric acid, Ammonia, Organic matter	Traces
Ozone	Varies

It will be seen from the above that oxygen, nitrogen, and carbonic acid gases are the three principal and constant constituents, whilst the remaining substances vary according to locality and time of year. The oxygen and nitrogen gases may be looked upon as representing the pure air, whilst the other substances represent accidental impurities. The oxygen gas is what we might term the active principle of the air, for the chemical effects produced in and by the atmosphere are mainly due to the oxygen.

Oxygen is one of the elementary substances of the chemist,—that is to say, it has never yet been split up into anything of a simpler nature. It constitutes roughly about one-fifth of the bulk of the atmosphere. It is possessed of great chemical power, for it unites with all the other elements, with one exception, and with the majority with great eagerness. It is colourless, tasteless, and odourless, as we might imagine from our knowledge of atmospheric air. It does not burn under ordinary conditions, for we never set the atmosphere on fire, but it aids other things to burn, as we have already seen,—or, in chemical language, it is an incombustible gas, but a supporter of combustion. All the phenomena connected with lighting, heating, and combustion depend on a supply of air,—or, rather, what the air

contains,—viz., oxygen. The reason for this is the great chemical power of oxygen, which, in uniting with other substances, produces heat; and the heat indirectly produces light. In the air, the oxygen exists in what is termed the free state,—that is to say, that it is not chemically combined with the other ingredients, but merely mixed with them. Not only do our fires, lamps, and candles depend on oxygen for their usefulness, but our own existence and the existence of all living matter depends on it, for if we cut off the supply of oxygen, we at the same time extinguish life.

In our lungs great chemical changes are produced by the oxygen; and if we examine the phenomena of respiration, we shall find that they are very similar, if not identical, with the chemical phenomena of combustion. We may remember that in combustion the carbon burned to carbonic acid gas, whilst the hydrogen burned to water. Now, by the union of these two elements with oxygen, the very same processes are carried on in our bodies, and, of course, the same products are the result. We inspire oxygen, mixed, of course, with the other gases, to the extent of six cubic inches at each inspiration,—for an average man takes in with each breath thirty cubic inches of air; and, as he breathes about fifteen times per minute, he takes into his lungs each minute of his life 450 cubic inches of air. Now, the lungs are made up of tubes branching and re-branching into minute twigs which terminate in small bag-like sacs, called air-cells. These cells are composed of thin membraneous tissue, about the thickness of an ordinary soap-bubble; and covering the cells of the lung is a close network of blood vessels, coiled about in all directions, so as to expose as large a surface as the space will allow. The number of cells in the lungs of a man of average build has been reckoned as 600,000,000, and it is in these cells that the blood is exposed to the action of the atmospheric oxygen, and, of course, to any impurity which the air may contain. The quantity of the impurity may be very small, but when we consider the large amount of air passing in and out of our lungs during a day of twenty-four hours (nearly 2,000 gallons), we can better understand the importance of breathing a pure atmosphere.

I have simply given the amount of air used by an ordinary man at rest; but if the body is at work, the inspirations increase in number, and the breathing is deeper. The first problem that strikes any thinking person is why, with the enormous influx of cold air coming in actual contact with the blood, that it is not cooled, and, as a necessary consequence, the body with it. The temperature of the atmosphere on a winter's day is, say, 40 degs. Fahr.; sometimes it is much colder; the temperature of the body is 98·5 degs. Fahr., and this temperature must not vary more than 6 degs. Fahr. or the most disastrous effects would follow. Yet there is a difference of at least 58 degs. Fahr. between the air we breathe and the blood with which it comes in contact. We breathe in this cold air, and our temperature does not fall, for by several provisions of nature the apparently difficult problem is solved. All the air which passes into our lungs is taken in by the mouth and nose. In the mouth it is partially warmed by coming in contact with the warm surfaces of the mouth, whilst in the nose it passes through what acts as a natural warming apparatus. How much better it would be for many weak-chested people to breathe through their noses, especially in cold weather, need hardly be pointed out. The air-passages of the lungs are themselves never emptied of air, even in very deep inspirations. We have already seen that about twenty to thirty cubic inches of air enter the lungs at each inspiration; but the warm residual air (or that already contained in the lungs) with which it comes in contact amounts to about 300 cubic inches, and the fresh air gradually mingles with this before coming in contact with the blood. Lastly, the blood is only exposed to the air for a moment, for it courses through the fine vessels in the air-cells very rapidly, and, after taking in its supply of oxygen and giving off its effete matter, is drawn on to the warmer tissues of the body. The blood in the lungs is cooled down a little, but it seldom falls more than two or three degrees.

Now let us examine the composition of the respired air. We all of us must have observed that on breathing on a cold day the moisture of our breath condenses, or if we breathe at any time against a cold window-pane, we note how the glass is bedewed with water. Now this water is derived from the hydrogen of our food which has been burned up in our bodies by the oxygen in the blood in the same way and producing the same effect as when the hydrogen of gas-lamps or candles is burned in air. Let any one try the simple experiment of breathing into lime-water, and he will find the clear lime-water soon turn milky, thus proving the presence of carbonic acid gas. These are simple experiments, but they show us the nature of this change which has taken place, for the carbonic acid gas has been produced by similar means to the water, viz., by combustion of the carbon of our food, or by what is the same, by its combination with the oxygen. An analysis of respired air will make these changes more apparent. The following table will show the comparative composition:—

	Oxygen.	Nitrogen.	Carbonic Acid.
Inspired air.....	20·81	79·15	·04
Expired air.....	16·033	79·557	4·380

It will be seen from this that expired air contains about four to five per cent. less oxygen and about four per cent. more carbonic acid than inspired air, besides being loaded with watery vapour. But there is something else added, viz., organic matter, which, though invisible, makes itself known both by its effect upon our systems and on our olfactory organs. If we go out of the frosty air of the street into a crowded hall there is always perceived a close kind of smell, even if the hall is well ventilated. If the water condensed in such a hall on windows be collected and some of it examined, it will be found to possess an unpleasant taste, and to undergo putrefaction if kept. It is the organic matter, or the worn-out particles of our bodies, breathed out from our lungs, which does so much to vitiate our atmosphere. It is this organic matter which renders us so liable to catch cold in leaving the warm hall for the cold street; and it is this matter, along with the carbonic acid gas, which we seek to remove by ventilation. We shall have something more to say about this later on; but we must first examine the manner in which the blood absorbs the oxygen, and what it does with it before it returns it as carbonic acid gas and water.

London Necropolis, Brookwood, Near Woking, Surrey. The largest and most beautiful cemetery in England. Five hundred acres exquisitely planted. Simple funerals. Earth to earth coffins can be used if desired. Pamphlets gratis. Apply—Secretary, 2, Lancaster-place, Strand.—[Advt.]

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

SOME OF THE RECENT APPLICATIONS OF MENTHOL.

SAYS an American contemporary, it is only within a few years past that menthol has been used to any extent in medicine, and even now its employment is rather restricted—more so, perhaps, than its merits deserve. What these merits are, and in what conditions menthol has been found to possess some curative properties, it may be profitable briefly to consider.

The most familiar employment of this camphor is as a local application for the relief of pain, and menthol cones are prepared and sold in the shops for this purpose. The relief obtained by such applications is usually but temporary, yet in some of the milder forms of facial neuralgia and so-called rheumatic pains the remedy is of real service. In itching also the soothing properties of the drug have been turned to good account. It is employed for this purpose in ointment, spirit, or liniment, in the strength of from one part in twenty to one part in ten. A very good preparation for this purpose is that recommended by Eloy, of a solution of fifteen grains of menthol in one ounce of 40 per cent. alcohol. Still another use for the remedy, as externally applied, is in the treatment of boils, and more especially of boils in the external ear canal. Here the germ-killing properties of the drug, as well as its power of abolishing feeling, come into play. Dr. Cholewa has made trial of menthol in these cases and commends it most highly. He applies it by means of a pledget of cotton moistened with a 20 per cent. solution, and inserted into the canal. The application is said to cause a little smarting at first, but this is soon succeeded by entire relief of pain and a speedy subsidence of the inflammatory process.

Ringworm of the scalp is said by Dr. Malcolm Morris to yield more promptly to applications of menthol than to any of the ordinary remedies employed for this purpose. One part of menthol, four of chloroform, and twelve of olive-oil is the formula recommended in such cases.

In the treatment of various affections of the upper air-passage, also, good results have been obtained by local applications of menthol in the form of solution, vapour, or spray. Rosenberg and others have claimed quite a large percentage of cures of laryngeal consumption by this means. In this country Potter, Knight, and others report very decided improvement after the use of menthol in this disease, but they have not observed any actual recoveries. In nasal and pharyngeal catarrh much benefit is often derived from sprays of menthol dissolved in oil or fluid vaseline in the strength of from 1 to 20 or 30 per cent. In hay fever Dr. Hill, of London, has found menthol to serve an excellent purpose as a substitute for cocaine. He applies a 10 or 20 per cent. solution in olive or almond oil to the sensitive area within the nose by means of a brush or atomizer.

In the chronic bronchitis of old age Nyes speaks favourably of inhalations of menthol, which, he says, not only facilitate and rapidly diminish the expectoration, but also allay the cough and reduce the number of paroxysms. These inhalations have also been used with good effect in whooping-cough. Finally, the same mode of application has proved useful in Jore's hands in relieving asthma. He reports a case for which all the usual and most of the unusual remedies had been tried unsuccessfully. Inhalations of a 20 per cent. solution in olive oil were then tried with the most satisfactory results—the rattling râles disappeared almost immediately, and the respiration soon became normal.

Menthol has not yet been employed to any great extent internally, although it is said to act efficiently when so given in controlling certain painful affections. Dr. C. L. Dana has so employed it with fairly satisfactory results in brow-ague, neuralgia, and other headaches. The dose for internal administration is from fifteen to sixty grains per day; but the latter dose, we should say, is much too large. These are some of the uses to which this drug has been applied, though they are by no means all. If the effects obtained should be found to be uniformly produced, we might well be justified in placing menthol among the most valuable of the minor therapeutic agents.

THE STING OF THE JELLY-FISH.

DR. B. W. RICHARDSON writes on the above subject in a recent number of the *Asclepiad*, giving a personal experience of his own. He says:—

In my case I was caught by the shoulders and chest in the tentacles of a large medusa, and had really for a minute or two a difficulty in freeing myself. The surface of the skin touched by the tentacles began to smart at once, and, by the time I was out of the water and partly dressed, the skin was covered, over the surface attacked, with a bright erythema, accompanied with a sense of extreme heat and irritation. The sensation was much the same as that brought on by the application of a mustard poultice, except that it was not so uniformly diffused, but was rather in the form of wheals in slightly raised lines, with a considerable number of points at which the tingling and heat were most severe. Unfortunately, I had no clinical thermometer by me with which to take the local temperature, but, judging by the touch of the hand, the local temperature was raised at least two or three degrees. The redness and irritation lasted seven hours, and did not absolutely subside until after a night's rest; but, during the time it was in the acute form, it was soothed considerably by the application of water, rendered alkaline by common washing soda in the proportion of an ounce of the soda to about two quarts of water.

A friend of the writer suffered far more severely. He was bathing where a number of jelly-fish were present, and got so entangled amongst them, that, as he said, he was "stung over almost all the surface of his body." He suffered from an acute erythematous eruption, which lasted over sixteen hours, attended with two degrees of general fever, and followed by malaise that lasted three days.

A still more important case happened in a very singular manner to another friend and patient. I had gone down to a bathing-place in the summer of 1872, not knowing that my friend was there. I had not been on the spot two hours, when a messenger came to me, asking if I would go at once to Mr. G., the friend in question, because he had been "stung in the throat by a jelly-fish, and they were afraid he would not live." On reaching my friend, who had accidentally heard I was near to him, I learned that about two hours before, while he had been floating on his back in the sea, with his mouth open, the tentacles of a jelly-fish swept into his mouth, and stung

him severely in the back of the throat. There could be no doubt about the mischief, for the throat over the whole of the pharynx was intensely red, and the surface was rough and raised. With this condition there were considerable heat and irritation, amounting to acute pain, and attended with inability to swallow anything, except fluids cooled with iced water. The idea of extreme danger was present in the mind of the sufferer, and I believe my firm assurance that he would take no harm contributed as much to the recovery that succeeded as the simple alkaline remedies which formed the chief part of the medical treatment. In this case also there was a rise of two degrees of temperature, and during convalescence there was marked depression of both mind and body for a period of two or three days.

In describing these phenomena, he adds, "I have used the ordinary word 'sting' for the want of one more accurate. Really, I do not know whether it is a sting, like that of a wasp or a nettle, that is inflicted, or whether a secretion, acrid in kind, is thrown upon the surface, and acts directly as an irritant fluid. On the whole, I suspect it is a fluid, or organic acid, which is the cause of the irritation. For the resultant erythema, local alkaline treatment is particularly effective. In the throat case, bicarbonate of soda with *mel boracis* proved very grateful and useful.

MORE ABOUT THE INFLUENZA AND ITS TREATMENT.

The "Russian influenza" may be distinguished from the ordinary "cold in the head" by the excretion from the nose and throat of a thick purulent mucus, by the increased temperature of the body, while there is persistent shivering and giddiness, with more or less frontal headache, and a feeling of extreme prostration. During the first stage, the skin is described as being burning hot, although the temperature of the body has only risen possibly three degrees above the normal; on the second or third day there may be running from the eyes and nose of an acrid watery fluid, profuse perspiration sets in; and on the morning of the fourth day after the attack the aching pains leave the body, and the patient experiences an irritating laryngeal cough. The *British Medical Journal* says this is the strong feature of the epidemic disease, as no remedy they are aware of will relieve it.

Now as to the treatment of influenza. Just now the disease is very prevalent in Paris, London, and elsewhere, and Professor Huchard recommends the employment of stimulants and antipyretics during the first stage. A five-grain Tabloid of Quinine, or three Tabloids of Antipyrin, five grains each, taken every four hours to reduce the accompanying remittent type of fever, and a glass of spirit (brandy or whisky) and water every two hours as a stimulant. During the epidemic of "*la grippe*" in 1886, M. Menetrier observed several cases of broncho-pneumonia follow an attack of the disease. This ought to be attended to immediately.

The patient should be put to bed between warm blankets with a hot-water bottle to the feet, and occasionally an Apomorphine Triturate Tabloid, to be slowly dissolved on the tongue as an expectorant when in bed.

A mustard and linseed-meal poultice should be applied hot to the chest. Eucalyptia or Pinol, ten drops of either, may be taken on sugar or constantly inhaled from a Pinol-Eucalyptia Dry Inhaler when the bronchial tubes feel clear of mucus and no irritating cough exists. To increase the tone of the system, a good tonic, as mentioned in our last number, such as a teaspoonful of Fellow's Syrup of Hypophosphites with a similar quantity of Kepler Solution of Cod Liver Oil in Malt Extract, should be taken. The former acts as a nerve tonic and stimulant, while the latter acts as a nutrient, remedying the weakness and emaciation consequent upon an attack of the disease. The latter part of the treatment is also well adapted for bronchitis and broncho-pneumonia.

Preventive measures are very important. A few drops of Eucalyptia or Pinol sprinkled about an apartment will render the air thoroughly free from, or counteract, the specific poison propagating the disease. It is a notable fact that the neighbourhoods of pine or eucalyptus trees are never visited by epidemic diseases. People are generally disgusted with the odour of chlorine, evolved from chloride of lime, and object to the presence of carbolic acid; on this account, germicides are not so generally employed as they should be. They do not, however, mind the pleasant and fragrant exhalations of Eucalyptia or Pinol; these, when sprinkled on a carpet, do not injure it in the least, and when employed in this way the vapour is thoroughly diffused through the atmosphere.

Pita, the new remedy for hydrophobia, recently discovered in Spain, seems to be a name given to the flower stalk of the aloe, a plant common in some parts of Spain. The story goes that its virtues were discovered accidentally by a man in a fit of hydrophobia falling upon an aloe plant and unconsciously biting the stem.

Frangipanni is said to have originated with a famous Italian botanist of that name in 1493, who delighted all with his wonderfully compounded perfume. At length the recipe reached a London perfumer, who popularized it the world over. This original recipe is in the hands of but two perfumers—a London house and a New York one; so the latter says.

Medicinal Plants.—The cathartic jalap is the powdered root of a convolvulus or bindweed, *C. jalapa;* root large, full of a milky juice; flowers red or purple, a native of Mexico; name derived from Xalapa, a province of Mexico. Squill is obtained from a plant called *Scilla* by botanists. This word is derived from the Greek, meaning to disquiet, it being a strong emetic. It is a native of the south of Europe. Its flowers, like many of the class, spring up before the leaves. The flowers are on spikes, white and green; the bulbs are long, tunicated roots, as large as the human head. The common senna is obtained from a plant called *Cassia senna*, a native of Egypt and Barbary. Another, *C. fistula*, is a native of the West Indies, where it is much cultivated for the sake of its pulp, which is a mild and pleasant laxative. The East Indian variety, however, is of very old repute, and, in the time of Avicena, the Arabian physician, was known by the name of *Cassia salutiva*. These plants are totally different from *Laurus cassia*, or bastard cinnamon, the bark of which was, as a spice or perfume, so much in favour with the ancients. Oxalic acid used to be obtained from, and is the basis of, our common wood-sorrel. The family have the leaves of a trefoil or clover, the flower of a geranium, and the taste of sorrel, but the flavour is more grateful, nearer to a lemon, and is sometimes used to cut up in salad. It is called in Italy *lujula*, which has been corrupted into *altenia*. Old English authors make it a cuckoo-meat, because it flowers at the time of the arrival of that bird. Oxalic acid, under the name of the essential oil of lemon, used to be obtained from sorrel, as well as from other plants. It is now, however, obtained mostly from the action of nitric acid upon sugar.

Our Medicine Chest.

"THE aim of using drugs is not so much to destroy diseases as to aid and assist the natural powers to overcome the disease-principle."—*Holland.*

A FOREIGN authority submits the following as a good ointment for piles:—Acid boracic, three parts; cocain. hydrochl., one part; lanolin, thirty parts. Mix. Another local application is as follows:—Chrysarobin, twelve grains; iodoform, five grains; ext. belladonnæ, nine grains; vaselin, four drachms. Mix. In case of internal piles the following suppositories may be used:—Chrysarobin, one and a quarter grains; iodoform, one-third of a grain; ext. belladonnæ, one-sixth of a grain; glycerini, q.s.; ol. theobromœ, q.s. to make a suppository. If there is severe bleeding a few grains of tannin are added. After three months' treatment with chrysarobin the hæmorrhoids are found to have almost completely shrivelled up.

✣ ✣ ✣

CHLORATE of potash alone, or in combination with hydrochloric acid in the form of gargles, or taken internally, is so often disappointing in the treatment of enlarged tonsils that better means are desirable. The belief that the disease is of parasitic origin has led to the use of such dangerous germicides as carbolic acid and bichloride of mercury; whilst the harmless, if not very active boracic acid has pretty well displaced the chlorate in domestic practice. Then salicylic acid was used, and with excellent results when applied judiciously. In the form of gargle it is least satisfactory, and often fails to reach the affected surface; as spray it is better, but to use that effectually trained hands are needed. The best and simplest mode is to apply the powdered acid directly by means of a rather large camel's-hair pencil, which may be slightly moistened. In this way it is brought directly in contact with the diseased surface, and but few applications are necessary. And it may be used with very young children after a little coaxing.

✣ ✣ ✣

WHEN the tonsils are covered with a thick mucous coating—which may be diphtheritic—it is necessary to previously remove it, and the following liquid, to be also applied with a brush, acts extremely well:—Pepsine, thirty grains; dilute hydrochloric acid, one drachm; water, five drachms; glycerine, four drachms. The coating is quickly dissolved (digested) in this solution. Besides applying the acid locally, it is advisable to give it internally at the same time, thus:—Salicylic acid, thirty grains; mucilage of acacia, one ounce; simple syrup, half an ounce; water, four and a half ounces. Mix. A tablespoonful every two hours. In the more chronic forms it is well to pencil the tonsils over with:—Tannin, fifteen grains; tincture of iodine, two drops; glycerine, five drachms; water, one ounce. For the prompt dispersal of threatened quinsy, apply with a brush three times a day the following solution:—Tannin, fifteen grains; tincture of iodine, three drops; carbolic acid, half a drachm; glycerine, five drachms; water, two and a half ounces.

✣ ✣ ✣

THE following solution facilitates the removal of wax in the external ear canal:—Acidi borici, fifty-five grains; glycerini, one and a half ounces; aquæ dest., one and a half ounces. Warm a few drops before placing into the ear, and leave it there for a quarter of an hour.

THE application of ice or cold is recommended as being of great advantage in the treatment of burns. If used judiciously from the beginning, or an hour or two after, the serum of the blisters is absorbed, and cohesion takes place between the wall of the blister cuticle, and *rete mucosum*, so that the skin returns to its natural state. At the recent International Congress of Dermatology and Syphilography, held in Paris, Schiff spoke favourably of the treatment of burns by iodoform, which is very successful in calming the pain. He stated that the blisters should first be cut away and the wounds gently washed with a weak solution of table-salt, then several layers of iodoform gauze are placed on the burn, the whole covered with a layer of oilskin. The first dressing should not be changed before the end of the first, or even second, week. When the burn is situated on the face an iodoform ointment (one in twenty) should be applied, covered with oil-silk. In the course of the discussion, Hebra said that iodoform gave very good results in the treatment of burns before the blisters become detached; but when that happens, iodoform prevents the granulations from being covered with epithelium. Resorcin, on the contrary, in a solution of one or two per cent., favours the rapid formation of epithelium. We cannot say that we are enamoured of Schiff's proposal to wash the wound with a solution of table-salt. Also, it is as well to point out that authorities are divided about cutting the blisters. One says, "This is, doubtless, bad practice, for the serum is lost; and the blisters themselves become so many sores or wounds to be treated, as well as the other lesions of the burns."

✣ ✣ ✣

FOR curing the thrush, which is so common amongst the ill-fed children of the poorest residents of our large cities, Dr. W. T. Ord, of Birmingham, advises the following lotion, to be applied frequently with a feather or brush to the white patches, which it removes after a few applications, leaving healthy mucous membrane:—Lot. hydrargyri nig. and glycerini, equal parts. Mix.

✣ ✣ ✣

AN American physician recommends the application in nasal catarrh, by means of a plug of cotton-wool on a suitable stem, of solution of chromic acid (one to ten per cent.). He believes that chromic acid instantly combines with gelatinous and albuminous substances to form a tough leather-like compound. The parts are then carefully examined and the sensitive spots mapped out for the subsequent application of the acid solution. It is advised to operate on the two nostrils separately. Considering the powerful causticity of chromic acid, it is evident that only weak solutions should be used at first.

LADY PATIENT: "Doctor, I am about to make a trip to Ostend, and have come to ask your advice." Doctor: "On what subject, madam?" Patient: "You must tell me the most suitable complaint to go to Ostend with!"

AN ANTISEPTIC OINTMENT, certain in power and not unpleasant in odour, is often desired by physicians for anointing the fingers. Dr. Th. Parvin says that benzoated lard, to which four per cent. of creolin is added, will meet these indications satisfactorily.

CHEMICAL ANALYSIS.—DR. DRINKWATER, Lecturer on Chemistry in the Edinburgh Medical School, undertakes the Analysis of Water, Foods, Wall-Papers, and of all other products and articles connected with Household Health and Commercial Interests. Terms on application to Dr. Drinkwater, Chemical Laboratory, 41, Chambers-street, Edinburgh.

HEALTH says:—"We find it to be an excellent preparation, containing all the necessary constituents for that restoration of Nervous Strength which is so essential to the successful treatment of Wasting or Debilitating Diseases. The curative properties of the Hypophosphites in affections of the Respiratory Organs have been permanently established, and in all forms of Nervous Debility their action is marked and certain. The admirable Tonic nature of this Syrup has long been recognized by the Medical Profession, and we can confidently recommend it as a Powerful Invigorator of the Nervous System."

IT IS SUITED TO BOTH SEXES AND ALL AGES.

For DELICATE LADIES
AND PARTICULARLY THOSE SUFFERING FROM
IMPOVERISHED BLOOD,
IT IS INVALUABLE.

INMAN'S COMPOUND SYRUP OF THE HYPOPHOSPHITES.
A TONIC SYRUP OF WONDERFUL STRENGTHENING AND INVIGORATING PROPERTIES.
Is Recommended and Prescribed by the Medical Faculty in all cases of NERVOUS PROSTRATION & GENERAL DEBILITY.

THE FAMILY DOCTOR says:—
"How many thousands suffer from nervous exhaustion and general debility brought on by anxiety, trouble, overwork, and a variety of other causes? All who suffer from wasting or debilitating diseases should at once, and without delay, have recourse to Inman's invaluable tonic. It is a safe and sure remedy. There is no medicine that has a more beneficial action upon an impaired or debilitated constitution. We are enabled, from our own personal experience, to strongly recommend it as a curative agent."

Sold in bottles at **2s. 6d.** *and* **4s. 6d.** *each.*

Agents:—F. Newbery & Sons, 1, King Edward-street; Taylor's Drug Co., High Holborn, and Leeds, Bradford, Hull, &c.; Lethbridge, Exeter; Cay Brothers, Aberdeen; Peebles Brothers, Dundee; Stewart, Dunfermline; and may be had from all Chemists and Patent Medicine Vendors, or post free from the Proprietors,

W. INMAN & CO., Ld.,
8, SHANDWICK-PLACE, EDINBURGH.

OLD SHIRTS REFITTED with fine Irish Linen, 2s., or with very best Irish Linen, 2s. 6d. each, returned ready to wear, carriage free. Sample New White Shirt, 2s. 9d., 3s. 9d., 5s. 9d., or 6s. 9d. 4-fold Irish Linen Collars, any size, 2s. 3d. and 2s. 9d. half dozen, post free.

IRISH LINEN GOODS. Napkins, 2s. 6d. per dozen; Dinner Napkins, 4s. 6d. per dozen; Table Cloths, 2 yards square, 2s. 9d. each; Kitchen Table Cloths, 11½d. each; Real Irish Linen Sheeting, fully bleached, 2 yards wide, 1s. 11d. per yard; and Linen Diaper, 8½d. per yard; Nursery Diaper, 4½d. per yard; Surplice Linen, 7d. per yard; Glass Cloths, 3s. 6d. per dozen; LINEN TOWELS, 3s. 6d. per dozen; Turkish Bath Towels, 1s. each.

IRISH CAMBRIC HANDKERCHIEFS. Children's, 1s.2d.; Ladies', 2s.3d.; Gent's, 3s. 6d. Hemstitched — Ladies', 2s. 11d.; Gent's, 4s. 11d. Better qualities equally cheap. Price Lists and Patterns of all kinds of Linen Goods and Hosiery sent to any part of the world post free.

B. & E. M'HUGH & CO., BELFAST.

ADVERTISEMENTS IN "HEALTH."

TARIFF PER INSERTION.

Whole Page	£5 5 0
Half Page	2 12 6
Quarter Page	1 6 6
Eighth of Page	0 13 6

Smaller Spaces *pro rata*.

Terms of Subscription per annum.

Including Postage in the United Kingdom, to the Continent, Canada, or the United States	£0 10 10
Including Postage to Australia, New Zealand, South Africa, or the West Indies	0 13 0
Including Postage to the East Indies and China (via Brindisi)	0 15 0

OFFICE: 2, PATERNOSTER-SQUARE LONDON, E.C.

"SHOULD BE IN THE HANDS OF EVERY YOUNG MAN."

AN IMPORTANT WORK.

"Serviceable alike in the cause of health and of moral purity."

A

LECTURE TO YOUNG MEN

On Purity of Life and the Preservation of Health.

BY A GRADUATE.

Post free, 1s. 1d., from

H. RENSHAW, MEDICAL PUBLISHER, 356, STRAND, LONDON, W.C.

"In these days of unblushing quackery," writes a clergyman, "it is refreshing to find a book one can recommend to young men. Such is the 'Lecture to Young Men' by a Graduate."

IN ALL CASES OF
RHEUMATISM, SCIATICA, LUMBAGO, BACK ACHE, Or STIFFNESS,
ONE SINGLE RUBBING
WITH THE PURE PRODUCT,

BAYLEY'S WOOD OILS,

Is guaranteed to do more good than Six Similar Rubbings with any other Compound Oil, Embrocation, Liniment, or Patent Medicine advertised for the cure of similar maladies, and the Proprietors of these preparations are challenged to refute this statement if they can.

BAYLEY'S WOOD OILS

Is no American quackery, no mere mixture of Hartshorn and Oil, or other worthless compounds. It is NOT a Patent Medicine, but it is a

Pure Penetrating Principle,

which penetrates to the root of the disease, and thus eradicates the malady which compounds fail to relieve.

DON'T DELAY! DON'T BE DECEIVED!

If you are a sufferer, send at once to your nearest Chemist for a bottle of

BAYLEY'S WOOD OILS (Price 1s.),

If he hasn't it in stock, don't be put off, but send 15 stamps to the Proprietor,

C. BAYLEY, CHEMIST, WALSALL,

Who will forward it post free.

LAWRENCE'S

MEDICAL DICTIONARY.

CONTAINING

64 Pages of Useful Information

ON THE TREATMENT OF

DISEASE, HYGIENE, NURSING, &c.

Post Free for 1 Stamp from

G. R. LAWRENCE, Chemist, Rhyl.

"FOR THE BLOOD IS THE LIFE."

CLARKE'S WORLD FAMED BLOOD MIXTURE.

Is warranted to cleanse the blood from all impurities, from *whatever* cause arising. For Scrofula, Scurvy, Eczema, Skin and Blood Diseases, and Sores of all kinds, its effects are marvellous. It is the only real specific for Gout and Rheumatic Pains, for it removes the *cause* from the blood and bones. Thousands of Testimonials. In bottles, 2s. 9d. and 11s. each, of all Chemists. Sent for 33 or 132 stamps by Proprietors,

THE LINCOLN AND MIDLAND COUNTIES DRUG COMPANY, LINCOLN.

BEWARE OF WORTHLESS IMITATIONS.

TOWLE'S

PENNYROYAL & STEEL PILLS

FOR FEMALES

Quickly correct all irregularities, remove all obstructions, and relieve the distressing symptoms so prevalent with the sex. Boxes, 1s. 1½d. and 2s. 9d., of all Chemists. Sent anywhere on receipt of 15 or 34 Stamps by the Maker,

E. T. TOWLE, Chemist, Nottingham.

Order "HEALTH" from your Newsagent.

TERMS OF SUBSCRIPTION.

Yearly, including home postage, postage to the Continent, Canada, or the United States, 10s. 10d.; Six Months, 5s. 5d.; Three Months, 2s. 8½d.

Cheques and Post Office Orders to be made payable to the Publisher A. P. WATT.

BRAHEE
SUGAR POWDERS

THE GREAT REMEDY FOR RHEUMATISM, LUMBAGO, FACEACHE, TOOTHACHE, EARACHE, COUGHS, AND ALL AFFECTIONS FROM COLD.

RECENT TESTIMONIAL.

45, Stonewall-street, Everton, Liverpool.

SIR,—I have been suffering off and on for over two years from acute rheumatism, but about eight months ago it assumed a chronic form. I have tried many remedies, but could find no permanent relief. On the 7th March last a gentlemen, to whom I had written and informed of my affliction, very kindly sent me six packets of your BRAHEE SUGAR POWDERS, advising me to try them. I did so, and by God's blessing I found great relief, when the gentleman very kindly and generously sent me twelve packets more. I persevered in the use of them—four powders a day—and I am thankful to the Lord I am now nearly recovered. The pains I experienced and suffering I endured have left me; the swelling in my leg has disappeared. I can now walk fairly, sleep has returned to me, and I have gained my appetite; and the only evidence of rheumatism remaining is the contraction of my hands, which I trust will eventually disappear.

Had it not been for the kindness of this gentleman mentioned above in giving and recommending your powders (and who would, if necessary, confirm my statement), I should, I believe, never have regained as well as I have health and the use of my limbs.—I am, Sir, yours truly, SARAH PEARSON.

Packets, 1s. 1½d. and 2s. 9d.

Wholesale: PINKERTON, GIBSON & Co., Edinburgh.

See Advertisement next week.

MADE WITH BOILING WATER.

EPPS'S

GRATEFUL—COMFORTING.

COCOA

MADE WITH BOILING MILK.

LUNG SAVE YOUR LIVES BY TAKING TONIC

OWBRIDGE'S LUNG TONIC

THE MIGHTY HEALER.

It has a power over disease hitherto unknown in Medicine.

Are you at all Weak-chested, or inclined to be Consumptive, with just a touch of Cough now and then?

"Try this Wonderful Medicine." The Cough and Weakness will disappear as if by magic, and you will feel a strength and power you never had before.

Have You a Cough?—A Dose Will Relieve It.
Have You a Cold?—A Dose at Bedtime Will Remove It.

Bronchitis and Asthma it relieves instantly.

The Spasms of Coughing so dreadful in Whooping Cough become less with each dose of the medicine.

"For twenty years I suffered every winter regularly as it came, from acute Bronchitis until my life did not seem worth a day's purchase. I had advice year after year from the first physicians in Lincoln, but nothing did me any real good till I took your Lung Tonic. *Three bottles completely cured me.* You may give my address to any who ask for it. "A. A. R."

"Your Lung Tonic I find excellent. My boy suffers with a bad cough, but that eased him directly.
"(Mrs.) N. MCMULLER, *Ware, Herts.*"

Prepared by W. T. OWBRIDGE, *Chemist, Hull.*

Sold in Bottles, 1s. 1½d., 2s. 9d., 4s. 6d., and 11s., by all Chemists and Patent Medicine Vendors. Wholesale, all London and Provincial Houses.

DO YOU SUFFER FROM INDIGESTION?

IF SO, USE

"PHŒNIX,"

THE

New Digestive Food.

"PHŒNIX," while acting as a Medicine, is also a most Perfect Food, delicious to take, and containing more nutriment than any other preparation now in use.

IT IS THE CORRECT THING FOR CHILDREN.

SOLD IN TINS. **RETAIL OF ALL CHEMISTS AND GROCERS.**

WHOLESALE:

Messrs. NEWBERY & SONS, London.

CLEN MILLS COMPANY, DUBLIN.

THE BEST TEA ON EARTH.

HORNIMAN'S

Ladies are the best judges of Tea, and in spite of allurements of low prices and consequent low quality, will have the best Tea. This has for 60 years been shown by their always preferring HORNIMAN'S Pure Tea, strong, delicious, and "Always good Alike."

LONDON PRICES:—
5d., 6d., 7d., 8d., 9d., 10d., 11d. per ¼-lb.

Sold by EVANS, opposite Mansion House, and 75, St. Paul's Churchyard; 400 Confectioners in London; 4,000 Chemists in the Country.

A REMARKABLE EFFECT OF SOAP.

An account has recently been given of a very curious case in which a girl was able to produce a disease by the aid of soap. The case was reported in a medical journal by Mr. T. W. Nunn, consulting-surgeon, Middlesex Hospital.

Mr. Nunn says, "Some years since, a delicate-looking girl, aged sixteen, was admitted under my care at the Middlesex Hospital. She had several sores on the right leg. The largest one was situated on the outer aspect of the limb, and was remarkably *quadrangular*. There were besides some patches of skin of variable size which had apparently lost vitality; one of these patches had the same squareness of shape as the largest sore just named, and had, moreover, the same superficies. The dead skin was obviously not slough having origin in any ordinary inflammatory process. On the arms and on the chest just below the clavicles were several cicatrices evincing a tendency to cheloid change. The angularity of the main sore and of the large slough, and their resemblance in size and the peculiar drab colour of the dead skin, led me to conclude that the condition was produced by the patient herself employing some irritant substance.

"The colour of the dead skin was not like that of a burn by either nitric acid or sulphuric acid, and, besides, a fluid caustic would hardly be got to make a square sore. I directed the Sister of the ward to carefully search the patient's luggage for any article of a suspicious nature. Nothing extraordinary was discovered. However, two square pieces of blue soap were found, and removed as not being included in the list of 'patients' necessaries.' I took away this soap; after keeping it in a dry place a few days a hard crystalline incrustation of a strong alkali formed on the surface of the soap. As the sizes of the sore and of the cake of soap coincided, there could be no reasonable doubt that we had the clue to the mystery.

"It is certainly strange," adds Mr. Nunn, "that a child could have discovered that binding a strongly alkaline soap on to the skin would produce sores. She must have done this a long while before she was sixteen, as the cicatrices (or scars) on the chest were not recent. There are numerous instances of malingering on record of curious detail, but I think malingering involving much physical suffering in any one so young as was this patient is rare.".

The case contains a grave lesson for the public, in respect of crude soaps, and of the harm which may be done to the skin by the use of soaps containing excess of crude alkali. To avoid all such effects, the only safety is to use a superfatted soap. Such is Vinolia Soap, recommended (along with Vinolia itself) by many eminent medical men.

Always cover the hair while sweeping. A sweeping-cap is easily made, but if there be no leisure time for that, a towel may be made to do duty.

Fifth Edition.—Now Ready.—Greatly Enlarged, and completely Revised.

"*A Book every Young Man should read.*"

"A Lecture to Young Men on Purity of Life and the Preservation of Health." By A Graduate. Price One Shilling, or post-free, 1s. 1d., from Henry Renshaw, Medical Publisher, 356, Strand, London, W.C.

This pamphlet, now being issued in its Fifth Edition, forms a complete refutation of quackery of all kinds, and is a safe and reliable guide, from the medical standpoint, to all young men. Every Youth should read this pamphlet as a guide to the safe conduct of life in a moral and physical sense.

Public Health

"Health is the first Wealth."—*Emerson.*

THE NOTIFICATION OF INFECTIOUS DISEASES.*

By Arthur Whitelegge, M.D.

No occasion could be more fitting than the present for the consideration of the next question which has been selected for discussion, viz., "The best means of obtaining and carrying out the notification of infectious disease." The recent legislation upon the subject has long been foreseen as inevitable, and we may now fairly regard the principle of compulsory notification as established beyond reasonable dispute, and turn our attention to the utilization of the new powers which are offered to sanitary authorities throughout the country. Much time has been wasted in profitless theoretical discussions upon the relative merits of the so-called "single" and "dual" modes of notification, regardless of the well-known fact that in practical working the two are identical. Both have been tried for many years in several large communities, and each has been found to resolve itself into notification by the medical attendant directly to the sanitary authority.

The new Act closes this controversy also by prescribing the dual form, that is, notification by the medical attendant and householder independently, and the experience of dual notification towns teaches us that the householder's share in the matter will for the most part remain in abeyance, but that the medical notification will be carried out, and will suffice for all purposes. Precisely the same result would have followed the substitution of the indirect or "single" system, which some authorities were so eager to bring about. To a medical practitioner notification becomes by constant repetition a familiar duty which is not likely to be forgotten, while to the householder it must long remain strange and unfamiliar. When there is no medical attendant notification will often be overlooked, without intention of concealment, even when the nature of the illness is known. For practical purposes we are dependent upon medical notification, and this consideration has an important bearing upon the selection of diseases to be notified.

The Act provides for the notification of small-pox, scarlet fever, diphtheria, enteric fever, and typhus. All these are largely dependent upon well-recognized preventible conditions, and are sufficiently dreaded by the public to ensure medical treatment in a great majority of cases. Hence few will escape diagnosis and notification, and the application of preventive measures upon a sufficient scale becomes possible. The argument for compulsory notification is less strong in regard to other infectious diseases, such as measles and whooping-cough, which the Act allows to be added to the list upon the resolution of a local authority. Only a minority of such cases are treated by medical men, among the working class at all events, and only an imperfect notification could be obtained. For several reasons preventive measures are less successful in respect to these diseases even under favourable conditions. Their early infectiousness, their long incubation, and their tendency to recur in short and intensé epidemics, render any adequate hospital isolation difficult, if not impossible, at present. Such isolation, to be of much service, would have to be upon

* A paper read before the Society of Medical Officers of Health.

an enormous scale, and until the public awake to the real importance of measles and whooping-cough, there would be considerable opposition to removal from home. For reasons which I shall mention presently, the information to be derived from even an incomplete notification is important and practically useful, but for the present I think we may well be content with demonstrating the advantages of notification in controlling the more manageable diseases, before undertaking the still more difficult, though not less important, task of dealing with those which have such a powerful ally in popular ignorance. Cholera, erysipelas, relapsing fever, and puerperal fever are to be notified under the new Act.

In order to reduce the trouble of notifying to a minimum, books of stamped and directed forms are issued by the sanitary authority to every medical man practising in the district. When he meets with a case of any of the scheduled infectious diseases, it is only necessary for him to fill in the name and address of the patient, the nature of the disease, and the date, and then to sign and post the certificate. It has been customary to give also the name of the householder, and much time may often be saved by specifying whether the case is or is not for removal. For obvious reasons notification by the householder is made in a less systematic way, and probably any sufficient written or even verbal intimation would be accepted.

The next step is for the medical officer of health or his assistants to visit the premises with as little loss of time as possible, and make such inquiries as may be necessary for tracing the source of infection, and for limiting its spread. For this purpose it is convenient to have stereotyped report sheets drawn up for each disease, and distinguished by their colour. Those which I have employed at Nottingham have certain parts common to all, viz., spaces for age and sex and nature and place of occupation of each inmate of the household, with a record of their being or not being presumably protected by a previous attack of the disease in question. Other common points of routine inquiry are the date of invasion and rash, degree of isolation, history of exposure to infection, and relation to other known or suspected cases; also milk supply, water supply, drainage, closet accommodation, number of rooms, and general details as to cleanliness, ventilation, and dryness of the premises. The small-pox sheets provide for special inquiry into the condition of each inmate as regards vaccination and revaccination, with dates. The enteric and diphtheria sheets enter into fuller detail regarding drainage and other possible sanitary defects about the premises, and latterly I have extended the range of inquiry so as to include domestic animals and the length of residence of the patient.

These sheets are no doubt susceptible of many improvements, but I have found them of great service even in their present form. From them the principal items are transferred to a tabular register, in which each case occupies one line, and each item has its appropriate column. This register I regard as a most important matter, and I keep it with my own hand. Any factor common to several cases—as, for example, a common milk supply, place of work, school, or even locality—will reveal itself at once, and I could quote many instances in which this has actually happened. More than once I have gone to a large school to look for the cause of eight or ten simultaneous cases of scarlet fever among the scholars—notified by as many different medical men—and have found there a child peeling after an unsuspected attack of scarlet fever. At first sight there was nothing in any of these cases to distinguish them from the dozens of others which occurred in the town at the same time, but the tabulation of the facts regarding each at once gave the clue. From the registers it is easy to prepare disease maps, showing the relation of each disease to localities, and the completeness of the notification data renders such maps most instructive and valuable. Another use which I have made of the returns is to construct daily and weekly charts showing the number of new cases of each disease. The dates of onset are of course taken, not those of notification. I trust that as notification becomes more generally adopted each county or group of counties will organize for itself a weekly return of sickness, compiled from the district returns, upon the model of that which the Local Government Board has at last undertaken for the present notification towns.

Returning to the infected household, it remains to be considered what precautions are to be suggested, urged, or enforced. If the sanitary authority has fulfilled its duty in providing proper and sufficient hospital accommodation, free of expense, removal should certainly be offered, and (if need be) urged in every case, subject of course to the approval of the medical attendant. I have made it a rule, to which no exceptions have yet been necessary, never to remove a patient to hospital without the consent both of the friends and the medical attendant, although I admit that the consent has not always been easy to obtain. Year by year the idea of hospital treatment of such cases has become more and more familiar, and at the present time every case of small-pox and nearly three-quarters of the cases of scarlet fever are removed to hospital. Of course instances occur in which, if necessary, I should resort to compulsion, but fortunately these have so far always yielded to persuasion. I have had to rely upon the general hospitals for isolation of enteric fever and diphtheria; but, by offering facilities and assistance in removing the patient, a considerable amount of isolation has been brought about.

If the patient is removed, it only remains to disinfect the premises, to establish a quarantine for the incubation period of possible future cases, and to keep the household under supervision for that time. Disinfection should be carried out, gratuitously of course, by skilled persons appointed for the purpose, and it is not the least of the advantages of notification that it leads to the substitution of real disinfection for worthless amateur attempts in this direction. Quarantine is most important in small-pox, and the Leicester plan of quarantining the entire household for a fortnight in an annexe to the hospital is worthy of imitation where possible. In other diseases, less thorough measures must suffice, viz., exclusion from school or work where the circumstances require it.

When the patient remains at home I exclude all members of the household from school attendance until the end of the case, except in enteric fever. Printed as well as verbal directions are given, pointing out the precautions necessary and the penalties incurred by their neglect. A postcard is left, to be signed by the medical attendant as soon as the patient is free from infection, so that disinfection may be carried out by the inspector. The house is revisited from time to time, in order to see that due precautions are being observed, and to learn if any further cases occur. Little if any reliance can be placed upon promises of careful isolation, especially in the later weeks of desquamation in scarlet fever, when the patient is apparently well, and the necessary restrictions have become intolerably irksome. Letters of warning should be sent to the schools attended by children living in the infected house, and at the end of the case a second letter

to state that all danger is at an end, and that the children may return to school. Sometimes it is necessary in like manner to warn the employers of other members of the household, as, for instance, when there is danger of infecting milk, or when the patient is badly isolated from the household.

In the event of small-pox, it is, of course, imperative to use every inducement in furtherance of vaccination and revaccination. The inmates of the infected house rarely fail to accept the offer of immediate and gratuitous vaccination, which should also be extended to the neighbours, and to all who have been in contact with the patient at home or elsewhere. I make no restriction as to age, date of previous vaccination, or previous attack of small-pox, for I have seen small-pox in a well-vaccinated child of four years of age, and in persons pitted by previous small-pox.

For notification to be carried out thoroughly it must have the support of the medical profession and of the public, and to obtain these it is only necessary that we, as medical officers of health, should exercise the same tact and discretion which are indispensable in other branches of our work, and without which we are unfitted for our office. We are not likely to forget that notification is one of the many onerous duties which the State has forced upon medical men, often against their will; and I think we may reasonably claim that, in the future as in the past, in regard to notification as well as other matters, the honour and interests of the profession are safe in our hands. Our business is not to supersede the the authority of the medical attendant, but to supplement his action in the interest of the public. Beyond this we are not concerned with the treatment of the case, or called upon to confirm or revise his diagnosis; but it is, nevertheless, most important that the medical officer of health should be practically familiar with every type of infectious disease, and ready to render assistance in this way whenever required.

As regards the public (represented by the patients and their friends), we have little compulsory power except in extreme cases; and our object should be to say as little as possible about compulsion, and to effect as much as possible by argument and persuasion. Except among the wealthier classes, home isolation is scarcely practicable; but the remedy lies not in compulsory removal, but in gradually educating the public to regard removal to hospital as a personal advantage and a public duty. With the help of notification this can be done, and has been done, as the experience of many towns abundantly testifies.

Without proper facilities for hospital isolation notification loses much of its value, although even registration of sickness is helpful. Hospitals should be free to all classes. Any charge, however small and however readily waived, is a serious check to the voluntary isolation which we desire to bring about—indeed, the remission of a charge carries with it a suggestion of charity which is objectionable. Small wards should be provided for the use of those who desire privacy and are willing to pay for the privilege, but any other charges are deterrent in the very cases in which isolation is most needed for the public safety.

It is instructive to observe that in notification towns the mortality from small-pox and scarlet fever has been reduced more than in non-notification towns, presumably owing to more thorough employment of the preventive measures which are attempted in all towns alike, viz., isolation and disinfection. Enteric fever and diphtheria, on the other hand, are less frequently isolated in hospital even in towns where notification prevails, and in respect to these diseases notification towns can show little if any advantage over the rest.

Lastly, the action of the sanitary authority must be prompt and firm, and any wilful disregard of due precautions should be punished as severely as the imperfect provisions of the Public Health Act permit. Due warning is given at the outset of the dangers and inconveniences which attend the treatment of infectious cases at home, and the offenders cannot even plead ignorance as an excuse.

The Seventh Annual Report of the Metropolitan Public Gardens Associations for 1889 is worth perusal, if only as a record of the great and good work this Society is doing in London, by securing free and open spaces for playgrounds, by beautifying existing spaces, and by placing seats as convenient resting-places throughout the great city. We commend this Association (83, Lancaster-gate, W.) to the favourable notice of our readers.

Magazines of the Month.—*Harper's Magazine* is a brilliant number, and contains a very full instalment of fiction, while its articles on "The Russian Army," "A Woman on Horseback," and "St. Andrew's" are admirably illustrated, and full of interesting details. *The Gentleman's Magazine* contains the first part of a story by G. Holmes, entitled "Sub Rosa;" while interesting papers on "Pantomime in the Far West," "Droitwich," and the "Philosopher's Stone" help to complete a very readable number. Messrs. Cassell's serials, *The New Popular Educator* and the *Illustrated History of England*, are also to hand, in their 15th and 39th parts respectively.

House Refuse and Town Impurities.—A pamphlet on the above-named subject, by Mr. Alexander Bobrownicki, takes its various illustrations from the city of Manchester. The author aims at attaining for populations the highest procurable cleanliness of soil, air, and water, and he contends that an unhealthy town has no other meaning than a proportionate accumulation of decaying or putrescible matter. The causes of the present mischief, as exemplified in Manchester, are overcrowded dwellings badly kept; surface impurities in streets, yards, and corners; sewers of such construction as admits of their structure becoming sodden, and of their charging the surrounding subsoil with filth; with a resulting contamination of the atmosphere above by reason of the exit of foul air through the multiple ventilators inserted in the hope of abating the evils below. The author regards the natural duty of sewers to be "to protect the subsoil against contamination from the surface, and to maintain as steadily as possible the level of the subsoil water;" and he is a strong upholder of the Manchester pail system, which, whilst presenting certain remediable defects, gets rid annually of no less than 241,215 tons of material that might otherwise add to the pollution of soil and air. He also classes amongst the dangerous impurities of a town the ordinary domestic smoke, and refers to certain experiments which give him hope that the vast and almost abandoned problem of purifying smoke may be practically and usefully resolved.

Special Notice.—The best stimulant for dietetic and other purposes is the "Skerryvore" (Registered) Blend of Fine Matured Scotch Whiskies, certified of the utmost purity by Mr. E. G. Clayton, F.C.S., Member of the Society of Public Analysts. Sold only by John Twatt, 36, Argyle-place, Edinburgh. Price 20s. per gallon, bottles and cases included.—[Advt.]

Popular Science Papers

"Blessings on Science! When the Earth seemed old,
When Faith grew doting, and our reason cold,
'Twas she discovered that the world was young,
And taught a language to its lisping tongue."

—*Charles Mackay.*

RECENT THEORIES CONCERNING FEVER.

By Dr. Austin Flint.

(Concluded.)

There are certain agents, called antipyretics, which, administered internally, will reduce the temperature of the body, and these have been largely used in fever. In most instances, in some way which is not exactly understood, they reduce the temperature in fever. The immediate effects of antipyrin or antifebrin, which are agents recently discovered, are so prompt and decided that there can be no doubt of their specific influence, whatever may be the mechanism of their action. The only questions with regard to their use have been whether or not they reduce the percentage of mortality, prevent the so-called accidents which are liable to occur in fevers, and promote rapid and thorough convalescence. These questions cannot be regarded as definitely settled in the minds of all physicians. Certain it is that the statistical arguments in favour of their use are not so convincing as those which relate to other measures directed against the single condition of increased heat of the body.

Theoretically, a rational mode of restoring the equilibrium between heat-production and heat-dissipation is to abstract the excessive heat of fever from the body. It is in this way that the normal temperature is maintained in health, when the internal calorific processes produce an excess of heat, part of which is converted into muscular force and part is dissipated by external radiation. When the body is exposed to prolonged and excessive external cold, this being the fixed condition, life is preserved by an increased internal production of heat. In fever the conditions are exactly reversed. An excessive internal production of heat may be assumed to be the fixed condition. This, if prolonged, produces profound and serious effects upon the circulation, digestion, and nervous system, and may threaten life. In a great majority of cases, the persistence of increased temperature is largely due to diminished heat-dissipation. One may well ask whether it be not better to attempt to reduce temperature by the abstraction of heat than by the use of internal antipyretics, the action of which is more or less uncertain. The danger-point in typhoid fever is almost universally admitted to be at about 103 degs. In very violent exercise in health the temperature may even exceed this, but it is rapidly reduced by heat-dissipation.

The most rapid and certain way of abstracting heat from the body is by the cold bath. Within a few years this has been extensively used in the treatment of typhoid fever. It is, however, by no means new. In 1777, Dr. William Wright, who afterward became President of the College of Physicians, Edinburgh, was attacked with fever on shipboard. On the fifth day he caused himself to be douched with cold salt water, and continued this repeatedly for several days with the happiest results. A few years later (1787-92), the celebrated Dr. Currie employed the cold bath in 153 recorded cases of fever. Recent statistics compiled by Dr. Simon Baruch are simply astounding in their results. In 2,150 cases of typhoid fever, collected from various sources by Brand, which were treated with "strict cold baths" before the fifth day, there did not occur a single death. In 18,612 cases under different methods of treatment, collected by Murchison, the rate of mortality was 18·62 per cent. The revival of the treatment of typhoid fever by the cold bath dates from a publication by Dr. Brand, in 1861. The routine of this treatment is to immerse the patient in a bath, at a temperature of 60 degs., for fifteen minutes every three hours, so long as his temperature is as high as 103 degs. It is, of course, essential that patients be placed in the bath and removed from the bath to the bed with the least possible fatigue.

On rational grounds, sustaining measures are important in the treatment of fever. About forty years ago, Dr. Graves, of Dublin, who afterward "fed fevers," was advised by a "shrewd country physician" never to let his patients die of starvation. A man at work makes more heat than in repose, and needs more food. In a case of fever, although the patient does no work, he makes an excessive quantity of heat, and this involves of necessity an oxidation of matter. If this matter be not supplied by food or some oxidizable material, the tissues must be consumed. Precisely in so far as the fever feeds on food the tissues are saved and convalescence is promoted after the disease shall have run its course; but the condition of the organs of digestion and assimilation renders the introduction of food a problem requiring the greatest judgment and skill on the part of the physician.

The question of the administration of alcohol in fever is one that cannot be avoided. In my judgment, this question should be discussed from a scientific standpoint only. In the face of the difficulty which exists in supplying matter for oxidation in the body to feed the exaggerated calorific processes, the use of any agent which will meet this want cannot logically be condemned on sentimental grounds alone. Even if alcohol be regarded as a poison, it must be remembered that poisons are often useful in medicine, and save life. From a purely scientific point of view, it may be admitted that, in perfect health, alcohol is not useful, and is deleterious. As physicians study the poisonous action of certain remedies in learning how to use them with happy effect, so what may be called the physiological effect of alcohol may be studied as a preparation for its use in disease.

The symptoms of alcoholic intoxication are due to certain peculiar effects upon the nerve-centres, of actual alcohol circulating in the blood. In perfect health, a very small quantity of alcohol will produce some effect of this kind; but this passes away when the alcohol is eliminated by the breath or otherwise, or when it is oxidized. In certain diseases, particularly in fever, it is well known that very large quantities are tolerated, and this is because the alcohol is promptly oxidized and makes no impression, as alcohol, on the nervous system. In disease, as well as in health, even a slight development of alcoholic intoxication is followed by a reaction which is more or less injurious.

Alcohol is by no means to be used indiscriminately in fevers. It is indicated only when there is a persistence of very high temperature, with great feebleness, rapid pulse, &c., showing intense and alarming general depression. Its value depends, not upon its stimulating effects upon the nervous system, but upon its rapid oxidation. It is promptly taken up by the blood, requires no preparation by digestion, and is oxidized even more readily in fever than in health. In so far as it is oxidized, it supplies material for combustion and saves the tissues from degeneration and destruction. There is a theory that the carbohydrates of food (starches and

THE INFLUENZA EPIDEMIC AND HOW TO CURE IT.

THE MOST CERTAIN CURE ON EARTH for **INFLUENZA, BRONCHITIS, PNEUMONIA, FEVERS,** and Inflammations of all kinds and grades, Asthma, Consumption, Coughs, Heart Disease, and all Affections of the Chest, is

MOONSEED BITTERS

which will with certainty prevent or cure Influenza, and is the greatest Brain, Nerve, and Muscle Food on Earth. Invigorates Mind and Body.

MOONSEED BITTERS of all Chemists, in Bottles, at 2s. 9d. and 4s. 6d.—one Shilling saved by buying the Large Size; or post free from the Sole Proprietors,

A. E. POWELL & CO., SWINDON, WILTS.

COCA LEAF

PREPARATIONS:

COCA TABLETS.
Containing Borax, to promote action on the Throat and the Vocal Cords. 2/6 per box.

COCA LOZENGES.
Without the Borax, for persons to whom its flavour would not be agreeable. 2/6 per Box.

COCA ELIXIR.
For making COCA Wine, the dose being 15 to 20 drops to the wineglass; can be taken in any fluid. 3/- per Bottle.

COCA TEA.
COCA, in combination with selected Teas; tonic invigorating, and delicious. 4/- per lb.

These preparations may be obtained of all Chemists and Grocers. An Explanatory and Historical Pamphlet, showing the uses of the COCA LEAF, sent on application to the Sole Proprietors—

THE FRENCH HYGIENIC SOCIETY OF LONDON, 6, Conduit-street, Regent-st., W.

Sir CHAS. CAMERON, M.D., says:—
"An Excellent Food, admirably adapted to the wants of Infants."

ESTABLISHED 1825.

NEAVE'S FOOD

FOR INFANTS, INVALIDS, AND THE AGED.

BEST AND CHEAPEST.

Dr. BARTLETT, Ph.D., F.C.S., says:—
"The Flesh and Bone-forming constituents are far above the average of the best Farinaceous Foods."

EDWARDS' REAL ARABIAN REVALENTA.

A NATURAL FOOD.

The Best to Promote Health, to Prevent Indigestion and Constipation.

FIRST INTRODUCED BY US IN 1849.

THE REAL ARABIAN REVALENTA is *not a Medicine*, but is a very nutritive farinaceous food, prepared from an Arabian plant, and it has obtained a wide celebrity, on account of its valuable soothing effect, when used as a daily food in cases of Constipation, Dyspepsia, and all other affections of the digestive organs, whether resulting from residence in an unhealthy climate, debility, or peculiarities of constitution. In all such cases its use will fully and completely restore the digestive organs to a vigorous and healthy tone, *in a more speedy and permanent manner than by any other means.*

May be had of all Chemists, &c., at 1s. per lb.; 3 lb. for 2s. 6d.

Or a 12-lb. canister will be forwarded, carriage paid, to any railway station in England, on receipt of a Post-Office Order for 10s., by the Manufacturers—

EDWARDS, KITCHING & CO.,
50, HOLLAND-STREET, BLACKFRIARS-ROAD, LONDON, S.E.

Established 1851.

BIRKBECK BANK,

SOUTHAMPTON BUILDINGS, CHANCERY-LANE.

THREE per CENT. INTEREST allowed on DEPOSITS, repayable on demand.

TWO per CENT. on CURRENT ACCOUNTS, calculated on the minimum monthly balances, when not drawn below £100.

STOCKS, SHARES, and ANNUITIES purchased and sold.

HOW TO PURCHASE A HOUSE FOR TWO GUINEAS PER MONTH, OR A PLOT OF LAND FOR FIVE SHILLINGS PER MONTH, with immediate possession.

The BIRKBECK ALMANACK, post free, with full particulars.

FRANCIS RAVENSCROFT, *Manager.*

IRISH LINEN COLLARS. Gent.'s Four-fold all pure Linen Collars, 4s. 6d. per dozen. Sample White Shirt, Linen Fittings, 2s. 6s., 3s. 6d., 4s. 6d., 5s. 6d., 6s. 6d. each. **Pure Irish Linen Goods at Manufacturers' Prices.** Fish Napkins, 2s. 6d. per dozen. Dinner Napkins, 4s. 6d. per dozen.

IRISH DAMASK TABLE CLOTHS. 2 yds. square, 2s. 9d. each. Nursery Diaper, 4½d. per yard. Real Irish Linen Sheeting, fully bleached, 2 yds. wide, 1s. 11d. per yard. Surplice Linen, 7d. per yard. Huckaback Towels, 4s. 6d. per dozen.

IRISH CAMBRIC POCKET **HANDKERCHIEFS** Ladies' Size, 2s. 3d.; Hemstitched, 2s. 11d. per dozen. Gent.'s Size, 3s. 6d.; Hemstitched, 4s. 11d. per dozen.

Samples and Price Lists Free to all parts.

IRISH TWEEDS. All Pure Wool, unsurpassed for strength, durability, and style. New patterns now ready, 27 inches wide, 1s. 10½d., 2s. 6d., and 3s. 6d. per yard.

Samples Free to all parts.

G. R. HUTTON & CO., Larne, Belfast.

1889. GOLD MEDAL, PARIS. 1889.

And Seventeen other Gold, Silver, and Bronze Medals.

WM. WOOLLAMS & CO.,

ORIGINAL MAKERS OF GUARANTEED

NON-ARSENICAL WALL PAPERS.

TO BE OBTAINED OF ALL DECORATORS.

Manufactory and Sole Address:
110, HIGH STREET
(Near Manchester-square),
LONDON, W.

NOTE TRADE MARK.

A PINE HARVEST ON THE ALPS.

GATHERING PUMILIO PINES FOR STERN'S PUMILINE.

PUMILINE

THE NEW PINE TREATMENT,

As Recommended by the Medical Profession

FOR

Asthma, Bronchitis, Coughs, Colds,

HAY FEVER, SORE THROAT, HOARSENESS, LOSS OF VOICE, &c.

EXCLUSIVELY OBTAINED FROM

THE SNOW-GROWN PINUS PUMILIO.

PUMILINE **ESSENCE.**—For Inhalations. Wonderfully efficacious in all Bronchial and Catarrhal affections, Consumption, &c., 1/6 and 2/6 per bottle.

PUMILINE **JUJUBES.**—Most agreeable, and never-failing remedy all for Throat and Chest troubles, Laryngeal Catarrh, Bronchitis, Coughs, Huskiness, Loss of Voice. In boxes, 1/1½ and 2/3 each.

For RHEUMATISM, GOUT, LUMBAGO, SCIATICA, &c.

PUMILINE **EXTRACT.**—Used in Baths. An invaluable remedy. Allays pain immediately, cures effectually. Also recommended for Weakly Children and Women. 1/- per bottle.

PUMILINE **LINIMENT.**—Specially beneficial in Chronic Rheumatism, Gout, Lumbago, Sprains, Bruises, &c. Also invaluable for Throat and Chest affections. Relieves all pain. In bottles, 1/1½ and 2/9 each.

For OBSTINATE SKIN DISEASE, IRRITATION, BURNS, &c.

PUMILINE **OINTMENT.**—For Eczema, Psoriasis, and other irritating skin affections. Unrivalled both as a medicinal agent and toilet requisite. 1/1½ and 2/9 per pot.

PUMILINE **PLASTER.**—Specially suitable for application in Lumbago and for the Backache to which women are liable. Applied to the chest it affords relief in Chronic Cough and Chronic Bronchitis. Price 1/1½.

PUMILINE **SOAP.**—A carefully neutralized Soap, superfatted with Lanoline. Unctuous, bland, and emollient. Lubricates the skin, renders it white and soft. Removes Roughness and Irritation. PUMILINE ESSENCE gives it a grateful fragrance, and makes it an agreeable antiseptic and deodorant. Price 6d. and 1/- per tablet.

SIR MORELL MACKENZIE and *over* 700 *leading Physicians and Surgeons* have given written testimony as to the supremacy of *Stern's Pumiline* preparations over all others. They contain the purest essences of the *Pinus Pumilio*, a particular variety of pine, growing nearest the snow level of the Alps. They exhale the beautiful and refreshing fragrance peculiar to the Alpine pine forests, and possess their exceptional curative and invigorating properties in their purest and most concentrated form.

One of the Physicians to H.R.H. the PRINCE OF WALES, writes: "Nothing gave my patient so much relief as STERN'S PUMILINE."

CAUTION.—*Ask for STERN'S PUMILINE.*

Of all Chemists; or will be sent on receipt of remittance (with 3d. to cover postage) by the Proprietors,

G. & G. STERN, 62, Gray's Inn-road, London, W.C.

A WORK ON THE "HOME USE OF PUMILINE" SENT FREE ON APPLICATION.

CHATTO & WINDUS'S CHEAP EDITIONS OF POPULAR NOVELS.

PICTURE COVERS, PRICE TWO SHILLINGS EACH.

By JAMES PAYN.
Lost Sir Massingberd
A Perfect Treasure
Bentinck's Tutor
Murphy's Master
A County Family
At Her Mercy
A Woman's Vengeance
Cecil's Tryst
Clyffards of Clyffe
The Family Scapegrace
Foster Brothers
Found Dead
Best of Husbands
Walter's Word
Halves
Fallen Fortunes
What He Cost Her
Humorous Stories
Gwendoline's Harvest
£200 Reward
Like Father, Like Son
Marine Residence
Married Beneath Him
Mirk Abbey
Not Wooed but Won
Less Black than We're Painted
By Proxy
Under One Roof
High Spirits
Carlyon's Year
A Confidential Agent
Some Private Views
From Exile
A Grape from a Thorn
For Cash Only
Kit: A Memory
The Canon's Ward
Talk of the Town
Holiday Tasks

By GEORGE AUGUSTUS SALA.
Gaslight and Daylight

By E. C. PRICE.
Valentia
Mrs. Lancaster's Rival
Gerald
The Foreigners

By CHARLES READE.
It is never Too Late to Mend
Hard Cash
Peg Woffington
Christie Johnstone
Griffith Gaunt
Put Yourself in His Place
The Double Marriage
Love Me Little, Love Me Long
Foul Play
The Cloister and the Hearth
The Course of True Love
Autobiography of a Thief
A Terrible Temptation
The Wandering Heir
A Simpleton
A Woman-Hater
Singleheart and Doubleface
Good Stories of Men and Other Animals
Readiana
The Jilt

By Mrs. J. H. RIDDELL.
Her Mother's Darling
Prince of Wales's Garden Party
Weird Stories
Fairy Water
The Uninhabited House
The Mystery in Palace Gardens

By F. W. ROBINSON.
Women are Strange
The Hands of Justice

By JAMES RUNCIMAN.
Skippers and Shellbacks
Grace Balmaign's Sweetheart
Schools and Scholars

By W. CLARK RUSSELL.
Round the Galley Fire
On the Fo'k'le Head
In the Middle Watch
A Voyage to the Cape

By BAYLE ST. JOHN.
A Levantine Family

By JOHN SAUNDERS.
Bound to the Wheel
One Against the World
Guy Waterman
Two Dreamers
The Lion in the Path

By KATHARINE SAUNDERS.
Joan Merryweather
Margaret and Elizabeth
The High Mills
Heart Salvage
Sebastian

By GEORGE R. SIMS.
Rogues and Vagabonds
The Ring o' Bells
Mary Jane's Memoirs
Mary Jane Married

By ARTHUR SKETCHLEY.
A Match in the Dark

By T. W. SPEIGHT.
The Mysteries of Heron Dyke
The Golden Hoop

By R. A. STERNDALE.
The Afghan Knife

By R. LOUIS STEVENSON.
New Arabian Nights
Prince Otto

By BERTHA THOMAS.
Cressida
Proud Maisie
The Violin Player

By W. MOY THOMAS.
A Fight for Life

By WALTER THORNBURY.
Tales for the Marines
Old Stories Re-told

By T. ADOLPHUS TROLLOPE.
Diamond Cut Diamond

By ANTHONY TROLLOPE.
The Way we Live Now
The American Senator
Frau Frohmann
Marion Fay
Kept in the Dark
Mr. Scarborough's Family
The Land-Leaguers
The Golden Lion of Granpere
John Caldigate

By F. ELEANOR TROLLOPE.
Like Ships upon the Sea
Anne Furness
Mabel's Progress

By J. T. TROWBRIDGE.
Farnell's Folly

By IVAN TURGENIEFF, &c.
Stories from Foreign Novelists

By MARK TWAIN.
Tom Sawyer
A Tramp Abroad
A Pleasure Trip on the Continent of Europe
The Stolen White Elephant
Huckleberry Finn
Life on the Mississippi
The Prince and the Pauper

By C. C. FRASER-TYTLER.
Mistress Judith

By J. S. WINTER.
Cavalry Life
Regimental Legends

By H. F. WOOD.
The Passenger from Scotland Yard

The above is a Selection only. *The Complete List of nearly FOUR HUNDRED NOVELS will be sent free upon application.*

LONDON: CHATTO & WINDUS, PICCADILLY, W.

sugars) are deposited in the liver, discharged into the blood as required, in the form of a substance called glycogen, which is converted into alcohol, and then oxidized. There are many strong facts and arguments in favour of this view; and if it be true, the administration of alcohol in fever is simply the introduction of a carbohydrate in such a form that it can be promptly used in supplying material for heat, the digestion of other carbohydrates being difficult and slow. A calculation of the heat-value of alcohol shows that one quart of French brandy when oxidized produces as many heat-units as a man of ordinary size would make in twenty-four hours. As a matter of actual observation, a quart or even more of brandy has been given in cases of fever in twenty-four hours, without any indications of alcoholic intoxication, and with the effect of actually reducing the temperature.

The popular interest in the question of alcohol seems to render it desirable that the position of physicians who use this agent in disease should be clearly defined. Taking fever as an example, physicians give alcohol simply as a readily oxidizable carbohydrate, and not for what is commonly known as an alcoholic stimulant effect. Although in certain cases it may be given very largely, it is stopped or the dose is diminished whenever the slightest indication of alcoholic intoxication is apparent. It would be difficult to find an instance of the alcoholic habit directly referable to the use of alcohol in fever; and, indeed, as far as habit is concerned, it would be much more logical to condemn opium than alcohol. No physician would be willing to eliminate opium from his *materia medica*. Those who refuse to administer alcohol under any circumstances, deprive themselves of an agent that is often most potent for good, and must occasionally sacrifice life to what the majority of intelligent physicians regard as a prejudice.

It would be out of place to give or attempt to give in this article a full account of the pathology and treatment of fever, but it is to be hoped that many are interested in a general way to know the grounds on which the practical ideas of physicians are based. In contrasting the medicine of a half-century ago with the medicine of to-day, it is easy to see how imperfect knowledge leads to errors in practice. The immense advance, however, within the last fifty years, especially in the discovery of the disease-producing microbes, leads one to speculate on the possibilities of the future, as I did in an article entitled "A Possible Revolution in Medicine." Revolutions in any branch of science, while they may receive a great impetus from a single remarkable discovery, are constantly and slowly progressing with the gradual accumulation of experience such as occurs in the science of medicine, particularly in hospital practice. The example of 2,150 fever patients, under a certain plan of treatment inaugurated before the fifth day, without a single death, may come home to some who read this article. The results of such experience will show why the most eminent members of the medical profession are not only willing but anxious to serve in hospitals without fee or reward. It is not too much to say that a patient in a pauper hospital has a better chance of recovery than many whose condition in life will command everything in the way of care and attention. One can hardly realize how much the poor in hospitals contribute to the health and happiness of those by whom the hospitals are sustained. Fortunately, hospital methods are being rapidly introduced into private practice, and this has been rendered possible by the substitution of the intelligent trained nurse for the traditional Mrs. Gamp and Mrs. Harris.—*The Forum.*

CAOUTCHOUC.

An interesting description of the collection and preparation of caoutchouc is given by Franz Keller in his work entitled, "The Amazon and Madiera Rivers," from which we take the following:—

Near the Praia de Tamandua we acquainted ourselves with all the particulars respecting the collection and preparation of the caoutchouc, at the cottage of a Bolivian seringueiro, Don Domingo Leigne. The Siphonia grows, or at least thrives, only on a soil wherein its stem is annually submerged by the floods to the height of three feet or more. The best ground for it, therefore, is the igapó, the lowest and most recent deposit of the river; and there, in the immediate vicinity of the seringals, may be seen the low thatches of the gatherers' huts, wretched hovels mostly, rendered tenable during the inundations by the device of raising the floor on wooden piles of seven feet in height, in which the canoe, the seringueiro's indispensable horse, also finds a protected harbour. Unenviable truly must be the life of the happy proprietor, who has nothing to do in the seringal during the wet season, and who then has ample leisure to calculate exactly the intervals between his fits of ague, and to let himself be devoured by carapanás, piums, motúcas, and mucuims—under which euphonious names are known some of the most terrible of insect pests.

Narrow paths lead from the cottage, through the dense underwood, to each separate tree; and as soon as the dry season sets in, the inmate of the palace just described betakes himself with his hatchet into the seringal to cut little holes in the bark. The milk-white sap immediately begins to exude into pieces of bamboo tied below, over little clay cups set under the gashes to prevent its trickling down the bark. The collector travels thus from trunk to trunk; and to facilitate operations, on his return visit he pours the contents of the bamboos into a large calabash provided with liana straps, which he empties at home into one of those large turtle-shells so auxiliary to housekeeping in these regions, serving as they do for troughs, basins, &c.

Without any delay he sets about the smoking process, as the resinous parts will separate after a while, and the quality of the rubber so become inferior. An earthen jar, without bottom and with a narrow neck, is set by way of chimney over a fire of dry urucury, or nauassú palm nuts, whose smoke alone, strange to say, has the effect of instantly coagulating the caoutchouc sap, which in this state greatly resembles rich cow's milk. The workman sitting beside this "chimney," through which roll dense clouds of a smothering white smoke, from a small calabash pours a little of the milk on a sort of a light wooden shovel, always careful, by proper management of the latter, to distribute it evenly over the surface. Thrusting the shovel into the thick smoke over the opening of the jar, he turns it several times to and fro with great rapidity, when the milk is seen to consolidate and to take a greyish-yellow tinge.

Thus he puts layer upon layer, until at last the caoutchouc on both sides of the wood has reached about an inch in thickness, when he thinks the "plancha" ready. Cutting it on one side, he takes it off the shovel and suspends it in the sun to dry, as there is always some water between the several layers, which should, if possible, evaporate. A good workman is thus able to prepare five or six pounds of solid seringa in an hour. The plancha, from its initial colour of a clear silver-grey, turns shortly into a yellow, and finally becomes the well-known dark brown of the rubber such as it is exported.

The more uniform, the denser and freer of bubbles the

whole mass is found to be, the better is its quality and the higher the price it fetches. Almost double the value is obtained for the first-rate article over that of the most inferior quality, the so-called seruamby or cabeça de negro (negro's head), which is nothing but the drops collected at the foot of the trees, with the remains of the milk scraped out of the bottoms of the calabashes. The rubber of India is said to be much like this seruamby, and, like it, to be mixed with sand and small pieces of bark. By way of testing the quality, every plancha is cut through again at Pará; by which means discovery is made, not only of the bubbles, but also of any adulteration that might be effected with the milk of the mangaba, that fine plant with dark glossy leaves, now found so often as house plants under the erroneous name of rubber-plant.

THINGS WORTH KNOWING.—That a mixture of rain-water, Cologne, and glycerine is excellent for roughness of the skin. That a growing castor-oil plant will drive mosquitoes, flies, and other pests from a room where it may be placed. That pulverized camphor and lard stirred to a salve is excellent for croup or colds, applied to the throat, chest, and nose. That you should breathe through your nose instead of your mouth, especially on coming from a warm room or hall into the damp night air. That a simple test for the detection of lead in drinking-water is furnished by tincture of cochineal, a few drops of which will colour the water blue if there be the remotest trace of lead present.

EXPLOSIVE MEDICAMENTS. — Professor Robert calls attention to the following explosive mixtures: Chlorate of potash mixed with charcoal dentifrice powder may explode, even in the mouth. Chlorate of potash mixed with catechu, or with tannin, explodes with friction, even if glycerin is added. Chlorate of potash and phosphate of sodium explodes while mixing the powder. One part of chromic acid mixed with two parts of glycerin explodes immediately. Iodine and ammonium should never be mixed together, as it is extremely apt to explode. Bromine and alcohol, forming the bromide of ethyl, often explodes. Picric acid reduced to powder explodes when mixed with any other substance.

ANTIPYRIN HABIT.—To the already long list of drugs, the use of which, under proper restrictions, is both beneficial and proper in combating the various ills to which flesh is heir, but whose abuse becomes a curse to humanity, another has recently been added. Scarcely have we learned to properly use antipyrin than the tocsin of alarm must be sounded against its abuse. The recent discovery of its value as a nerve tonic places it on the list with morphine, chloral, cocaine, &c., so seductive is its gentle, soothing influence upon the overstrained nerves. Its victims are already found, especially among society women, whose nerves strung up to a high pitch by the overwhelming demands of a winter season of gaiety, seize eagerly upon anything that will afford relief from the headaches and other disorders arising from prolonged fatigue and overtired nerves. So pleasing is the effect that it is soon used for every trifling ill-feeling, until the patient finds herself unable to live without it, and the fascinating "antipyrin habit" is formed. Properly used as a nerve tonic, its effects are admirable, but *abused*, the victim becomes even more hopelessly entangled than the morphine or cocaine victim. The effects vary with the dose. In large doses it produces complete relaxation with loss of reflex action. In moderate doses, continued, it induces convulsions. As a stimulant its effect is much like that of quinine.

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sydney.*

Then and Now.—At the period of the Conquest the population of England and Wales was under two millions. At the time of the Domesday Book the population of Sussex could not have been more than ten thousand, or one-fifth of the population of Hastings at the present time. As population has advanced, production has advanced; judging from the population of England and Wales, which was not above two millions, according to Professor Thorold Rogers, the average yield of the estates of the University of Oxford was not more than eight bushels an acre. With the advance in population production increased. In the time of Tull, in Queen Anne's reign, it had reached to fifteen bushels an acre, and fivefold, which is just what it is now in all France. In the time of Arthur Young (1741-1820) it had increased to twenty bushels. The farmers' returns are not reliable, and Mark-lane sent out to the corn-growing counties people to test the crops, and they found that the crops averaged in England thirty-two bushels, whilst in Scotland they average forty bushels, and with liquified manure culture fifty bushels; and it is now stated, on the experience in Essex of the Scotch farmers who have taken up the farms abandoned by the old English farmers, that the production of the United Kingdom may be more than doubled. The commencement of the sanitary advance of population, as well as of animals, is by land-drainage, first introduced by Mr. Smith, of Deanston, by which it is proved that where the subsoil drainage of the sites of towns has been effected phthisis has been reduced by one-half, and that there is a corresponding reduction of the diseases of animals. The rate of wages within the last forty years was three shillings a day; it has now advanced to six, whilst the price of provisions has been largely reduced. The experiences of land-drainage which I have recited are of vast importance for colonization, for it is proved that, where the emigrants are located upon undrained land, full half their children are in their graves from the insanitary conditions soon after their fifth year. Sanitation, then, is necessary for the protection of the resident population as well as of the immigrants. It may be taken that emigration is only at its commencement. In an article on Colonization by M. Jules Duval, in M. Maurice Block's "Dictionnaire de la Politique," the writer states that of the cultivable and habitable portion of the globe, there is in fact only one-sixth in a state of normal colonization and occupation. The remaining part is but thinly inhabited by tribes which will have to disappear before the advance of the Anglo-Saxon and other European races. The effect of insanitation in depopulating instead of populating was stated to me by Sir Francis Head as the result of his observation while he was Governor of Canada. He said the best means of protection of the Indians was in being at war with them, because there were only thin hostile lines, and the Indians were very much kept to themselves with very little loss; the first destructive thing, however, was being at peace with them, because that brought them within the range of liquor-sellers, so that they bought rum or other spirits, and that was far more destructive to them than the condition of war; but the most destructive measure of all was to allow missionaries to go amongst them uninformed as to the protective power of sanitation. These missionaries went far into their lines

and persuaded the Indians to have regular habitations and to mass themselves within the sound of the church bell; but the missionaries being generally ignorant of sanitary science, or even of the Mosaic principles of it, these insanitary conditions introduced the zymotic diseases—small-pox especially—as well as others, which were most destructive to the filthy population thus massed together.—*Sir E. Chadwick.*

Insensibility of Animals to Pain.—Dr. Collier points out that amongst the lower races of men the insensibility to pain is extreme, and refers to an example given in the *Spectator* a few months ago, when a correspondent related the fact that on the introduction of boots into New Zealand the vanity of the natives was so great that when one of them was happy enough to become the possessor of a pair, and found that they were too small, he did not hesitate to chop off a toe or two, stanch the bleeding by covering the stump with a little hemp, and then force the feet into the boots. Dr. Collier points out that animals are not liable to shock, and hence after the severest injuries will continue to feed as though nothing had happened; that many animals, as crabs, will throw off an offending limb; and that most animals die in deadly conflict or under the occurrence of sudden wounds, when evidence derived from man shows that little or no pain is experienced. Mr. Rowell has accumulated in his "Essay on the Beneficent Distribution of the Sense of Pain" a series of remarkable cases, showing the very low sensibility of even the higher animals. He gives, for example, the case of a post-horse, which was running between Botley and Evesham, when it came down with such violence that the skin and sinews of both the fore fetlock joints were so cut that on its rising the bones came through the skin and the feet turned up at the back of the legs, the animal walking on the ends of the leg bones. It was placed in a field till permission was obtained for having it shot, and the next morning it was found quietly grazing, with the feet and skin forced some distance up the leg bones. Dormice, rats, and even monkeys will nibble away their own tails, and an old hyæna kept in the Jardin des Plantes at Paris had its leg broken, and one night bit off the leg at the broken part and ate it. It must be remembered, too, as Mr. Rowell has pointed out, that pain has its beneficial aspect, being a guard against injury and a check to excesses; the high sensitiveness of the lips in man, for example, preventing the introduction into the stomach of food or fluids at too high a temperature, and the pain of pleurisy or of pericarditis preventing the sufferer from taking any violent exercise. We are quite in accord, however, with Dr. Collier, in thinking that a belief in the small amount of pain experienced by animals should not make us less careful in our dealings with them, but should strengthen our belief in the mercy and benevolence of the Creator, and should increase our pleasure in studying their habits and movements.—*Lancet.*

Tinned Foods.—Captain Segrave, the British Consul at Baltimore, has sent a report to the Foreign Office upon the provisions preserved in tins for export from the United States. Warnings as to the risks which may attend the use of tinned foods have appeared at rare intervals in professional papers, and have ultimately found their way into the daily press; but, beyond a passing reference to the sluggishness of "the authorities" who do not "do their duty" by taking steps to protect the public from peril, little, if anything, has been done to call general attention to the matter. Captain Segrave points out that a serious danger lies in the use of certain materials for soldering the tin cans and making them air-tight. The better qualities of solder used are, it seems, composed of equal parts of tin and lead, but larger proportions of lead are often present, and a flux "composed of chloride of zinc, containing free hydrochloric acid," is applied to the surfaces to be soldered, which are, as a rule, the inside instead of the outside surfaces. There have been serious cases of poisoning in this country which have been attributed to the use of certain tinned foods, and which have been placed upon record by those who were concerned in their treatment. It is not unreasonable to suppose that there have been many cases of this kind—probably of a mild description—which have never found their way into print; but, apart from this, the peril to the public is sufficiently obvious, and, having regard to the well-known cumulative effect of continued small doses of the salts of tin, lead, and zinc, it must not be thought that the absence of numerous and startling cases of metallic poisoning is a proof of the generally innocuous nature of canned goods. The outer layers of substances preserved in tins have occasionally been found, on analysis, to contain metallic salts, obviously derived from the containing vessel, and this is, of course, no more than might reasonably be expected, under certain circumstances. It is suggested that a law should be passed rendering it compulsory to solder cans of provisions on the outside only. Whilst this might be useful, it must be admitted that such matters cannot be adequately dealt with by piecemeal legislation. To deal properly with the impurities and adulteration to which our food supplies are liable, far more comprehensive laws than those at present in existence in this country are required. It is not generally known that under the law as it at present stands there would be the greatest difficulty in getting manufacturers or vendors of tinned goods containing small quantities of poisonous metals convicted, and again there is the difficulty of deciding upon whom the punishment, if any, should fall. The question of "injuriousness to health" is a vexed one upon which "experts" always differ widely. The absolute prohibition of the presence of certain metals in foods beyond a fixed limit appears to be the only principle likely to be satisfactory.—*British Medical Journal.*

Housing of the Working-Classes.—Important recommendations, from a sanitary point of view, have been set forth by the Committee of the Housing of the Working-Classes of the London County Council, as to the course to be adopted in regard to staircases, basement floors, bath-rooms, and the sizes of rooms in the buildings they undertake. As to staircases, they intend to have the buildings provided with staircases close to the outer wall and having large openings communicating with the open air. This staircase can be conveniently arranged to give access to four dwellings, and the ventilation of the dwellings will be effected by means of open doors and fanlights, so that a thorough current of air can be obtained when desired. In building artizans' dwellings it is generally expedient to construct a storey below the ground floor, though it is not necessary for them to be used as dwellings. The basement floor is undesirable as a residence, but there is no reason why it should not be used, provided that adequate precautions are taken, and that the bottom of the window-sills is not lower than the level of the adjoining pavement, and not more than three feet above the floor. The Committee think that where no areas are practicable, the walls should be covered with asphalte or other damp-resisting material, from the damp-

course to the footings. Bath and wash-house accommodation is to be provided to every block of dwellings, as it rarely happens that the dwellings are in close proximity to public-baths and wash-houses. This section of the dwellings will be constantly under inspection. In connection with the baths, the question of water-closet accommodation was considered, and it was agreed that a sufficient number of closets should be supplied to each floor of dwellings, to which a separate staircase should be provided, together with a provision of sinks and water-supply for common use. Dust-shoots are to be provided from each common scullery, or from the landing adjacent, to discharge into galvanized iron movable dust-bins, which can be carried out and emptied into the dust-cart. In a one-roomed tenement the minimum superficial area is to be 144 feet, and the room should measure 12 feet by 12 feet; a two-roomed tenement is to have a similar room with an additional room containing 96 superficial feet or measuring 12 feet by 8; a three-roomed tenement is to have a large room containing 144 feet in superficial area, and two rooms, each containing 96 feet. The standard height for every room is to be 9 feet. It is intended to bestow care on the design of the buildings so as to give them a pleasant appearance.—*Sanitary Review.*

THE DISINFECTION OF BOOKS.—The Boston Health Board has ordered that the public library ticket, held by any person in whose family a case of contagious disease has occurred, be stamped so as to show the presence of such disease. All books returned with a card so stamped are to be disinfected, and no other books can be taken out on this card until an official notification is received that the danger of contagion no longer exists.

AN ANCIENT PRESCRIPTION.—A grim jest-book might be compiled from the prescriptions filed away in the shops of druggists, many of them reposing in austere loneliness under a disguise of execrable handwriting. The following is a relic of the pioneer doctor of fifty years ago: "A receipt for Armilda Purdy's Lung Complaint—Take of the bark of wild Cherry, Sassafras, Sycamore, yellow poplar, Dogwood, and black oak, a double handful of each; take of Sarsaparilla Root and Spignard, one handful of each; to which add three Gallons of water. Boil it Down to one, strain it, and add one quart of Good french Brandy, and one quart of Honey; of which take about one Gill three times a day. This was tried by Jonathan Douglas when he Could not Set up, and has Cured Several others. N.B.—If She Cannot be agreeable to Directions, Take what She Can."

THE BIDDENDEN MAIDS.—One of the most curious of our old charities is that of the Biddenden maids. These two unfortunate women were born at Biddenden, in Kent, in the year 1800, joined to each other at the hip and shoulders. Their names were Eliza and Mary Chulkhurst, and they lived for thirty-four years. Then one fell ill and died, and the survivor was advised to be separated from her dead sister by dissection, but she refused, saying: "As we came together, we will also go together." Within six hours she was taken sick and died also. By their will they bequeathed to the churchwarden at Biddenden a piece of ground, which now brings in a rental of forty guineas. This is expended in the purchase of 500 quartern loaves, and cheese in proportion, which are distributed among the poor of the parish, and on Easter Sunday 1,000 small rolls, shaped like a gravestone, and bearing a bas-relief portrait of the unfortunate maids, are distributed to all who attend divine service.

IMPORTANT ANNOUNCEMENT.

A NEW VOLUME BEGAN WITH THE NUMBER FOR FRIDAY, OCTOBER 4th, 1889.

BONUSES TO SUBSCRIBERS TO "HEALTH."

HEALTH, as our readers are aware, may be obtained of all Booksellers and Newsagents, and at the Railway Bookstalls, on the day of publication. It may also be ordered from the PUBLISHER, 2, Paternoster-square, London, E.C., who will send the journal, post free, for a year, on receipt of postal orders for 10s. 10d.

As many of our readers who live in remote districts prefer to obtain HEALTH from the Publisher direct, and as we are desirous of increasing the already large number of subscribers who give us a yearly order for the journal, we offer the following FREE GIFTS and BONUSES to all who subscribe to HEALTH for one year or longer:—

(1.) To each Subscriber who remits 10s. 10d. to the Publisher, entitling him (or her) to receive one copy of HEALTH, post free, for one year, we shall present a copy of Dr. Andrew Wilson's work, entitled "A Manual of Health Science" (Longmans & Co.), value 2s. 6d.

(2.) To each subscriber who remits 21s. 8d., entitling him or her to receive two copies of HEALTH weekly, post free, for one year (or one copy for two years), we will present Dr. Richardson's "Ministry of Health" (Chatto & Windus), value 6s. The copies of HEALTH so ordered may be posted to separate addresses.

(3.) To each person who subscribes 32s. 6d., for three copies of HEALTH, post free, weekly, for one year, we will present the volume by Dr. Richardson mentioned above, and also the handsome, illustrated book entitled, "Studies in Life and Sense," by Dr. Andrew Wilson (Chatto & Windus), value 6s.—being a free gift of the total value of 12s.

The bonus last mentioned will also be presented to anyone who succeeds in obtaining three yearly subscribers to HEALTH, and who remits to the Publisher the sum of 32s. 6d., together with the names and addresses of the persons to whom the copies are to be posted each week.

As the literary gifts above-mentioned constitute books containing solid and reliable information regarding health and other matters of popular scientific interest, it will be seen that the above scheme, while intended to increase our already large circulation, also offers distinct advantages to new subscribers who guarantee by their subscriptions a year's support to this journal. All communications regarding subscriptions and other purely business details connected with HEALTH should be addressed directly to the PUBLISHER, 2, Paternoster-square, London, E.C., and *not to the Editor.*

A LONDON correspondent says that some experiments in judging distance by sound were carried out recently by one of the London brigades of the Metropolitan Volunteers. This branch of military tactics is quite a new departure. It was first explained to the men that sound travels at the rate of 1,100 yards in three seconds, and on this basis they were to estimate the distance at which some rifles were being discharged in the darkness. The answers at first were very wide of the mark, some of the men being as much as 150 yards out in their calculations. With a little practice, however, a great improvement was shown, many of the men guessing the distance exactly. The experiments are not as satisfactory as was hoped, and it is thought some time must elapse before judging distance by sound can be relied upon with any certainty.

Our Letter-Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including Books for Review, Specimens of Sanitary Appliances, &c.), to be addressed to "THE EDITOR OF HEALTH," 2, PATERNOSTER-SQUARE, LONDON, E.C. *Those intended for the Publishing Office to be sent to* MR. A. P. WATT, THE PUBLISHER, *at the same address.*

RULES FOR CORRESPONDENTS.

OWING to the mass of letters which reaches us each week, we respectfully direct the attention of Correspondents, desiring replies in the LETTER-BOX DEPARTMENT of HEALTH, to the following rules:—

1. All questions are answered free of charge in the columns of HEALTH. A limited space only, is available for the insertion of replies each week.
2. All letters must be legibly addressed to "The Editor of HEALTH, 2, Paternoster-square, London, E.C.," *and to no other address.*
3. Questions to which answers are desired by post, are so replied to solely at the Editor's discretion. If no answer is sent by post, the query will be replied to in the "Letter-Box" columns of HEALTH. A stamped addressed envelope must accompany all queries to which a private reply is desired.
4. Addresses of physicians and surgeons will, as heretofore, be forwarded FREE to Correspondents on their enclosing a stamped addressed envelope for reply.
5. Correspondents are requested to write on one side of the paper only, and to make their inquiries as brief as may be consistent with clearness.
6. From the necessity of sending HEALTH to press early in the week, no Correspondent can be replied to in the "Letter-Box" columns in the same week in which the inquiry is received. Replies crushed out of any issue will be found in the succeeding number.
7. No Post Cards must be used in sending queries. Violation of this rule deprives the sender of the privilege of a reply.

QUERIES AND ANSWERS.

REPLIES: GENERAL, SANITARY, AND MEDICAL

[Readers of HEALTH will kindly note that when back numbers of the journal are desired, the letters containing such requests and stamps for the numbers should be addressed to the PUBLISHER of HEALTH, 2, Paternoster-square, London, E.C., and *not to the Editor.*]

A. SIMPSON.—You will find full information in the pamphlet recommended to "Almor," in the present number of HEALTH.

STELLA.—1. No; they are intended for females only. 2. Try Bayley's Wood Oils (advertised in our pages). 3. A few minutes should decide. 4. No; but it goes well with Fer Bravais.

SPERO MELIORA (Reading).—Read the pamphlet recommended in the present number to "Almor," and follow out the rules it gives regarding diet, &c., and you will speedily cure the symptoms to which you refer.

ENQUIRER.—In such a case no external treatment is of any avail. The patient should visit a physician accustomed to treat such ailments, and have a suitable pessary adapted for the replacement of the falling.

E. F. G.—1. Mellin's Food is that you should alone give your child. The foods you have been giving the child contain starch, and are therefore unsuitable for an infant of that age. 2. Blaud's Pills (see advertisement in our pages).

ALFORD.—1. Apply Vinolia to the part as an ointment, and use only Vinolia Soap to wash with. What you name is a slight form of eczema. 2. Apply to the French Hygienic Society, 6, Conduit-street, London, W., for a harmless hair-dye.

B. GIRVAN.—We should say you would be well suited by trying Bunter's Tooth Preparations (see advertisement in our pages); and after your meals take Möller's Cod Liver Oil regularly.

C. C. C.—Take Dahl's Cakes regularly to breakfast and tea for a time, and give up taking pills.

DAVID SCOTT.—We think you may take the exercise you name whenever you feel inclined for it. The rule is that unless disposed to take exercise you are better without it; but if you feel it would do good, by all means try it, and see how it agrees with you. We did not answer this query in our last reply for the simple reason that you did not ask it.

1883.—Your idea is erroneous. Phosphorus is only a nerve tonic, and could only affect the hair (if it did so at all) by improving the general health. Follow advice given to "Cantor" in the present number.

L. O. B.—See advice given to "Selby" in HEALTH No. 352.

J. W.—Read the pamphlet recommended to "Almor" in the present number, and follow out the rules it gives as to diet, exercise, &c., and you will thereby get quite well.

TONE.—You are quite in error in refraining from the exercise you name. There is no reason why you should do so. You only require a tonic; try a teaspoonful of Inman's Syrup of the Hypophosphites (advertised in our pages) in a wineglass of water, thrice daily, after your meals.

AGIS.—Take the following: Carbonate of bismuth, ten grains; wood charcoal, ten grains; bicarbonate of soda, five grains. Mix. One such powder to be taken thrice daily, half an hour before meals.

E. GROSE.—Try the following: Ammonio-citrate of iron, a drachm and a half; spirit of sal-volatile, three drachms; chloric ether, one drachm; syrup of tolu, three drachms; camphor julep, seven ounces. Label: "Two tablespoonfuls thrice daily, after meals." Clothe in Forsyth's Hygienic Woollen Wear (17, Renfield-street, Glasgow) as a sure preventive against chill.

TOPLADY.—We do not know the firm you name. Apply to the Medical Battery Company, 52, Oxford-street, W., and you may be supplied with the information you seek.

RODEO.—If acidity is present you may try the following: Subnitrate of bismuth, six grains; carbonate of magnesia, ten grains; powdered gum arabic, twenty grains. Mix to form a powder, stir in a cup of boiled milk, and, when cool, stir up again before being swallowed. Take this powder twice daily, after food; and avoid sweets, cheese, pastry, and like foods.

ACTOR.—To make black hair-dye, the following is the method before recommended: Nitrate of silver, four drachms; sodium carbonate, six drachms. Dissolve each in eight ounces of boiling water, mix, collect the precipitate, wash it, and drain. Place in a mortar along with eighty grains tartaric acid, stir, and when effervescence ceases, dissolve in a solution of ammonia, a sufficient quantity, add two drachms each glycerine and mucilage, a little caramel to colour, and water to make up five ounces.

S. E. F.—For the constipation, take twenty drops of Cascara Cordial, or two Cascara Tabloids, each night; and use Dahl's Cakes regularly with your breakfast and tea.

P. S. H.—1. Messrs. Pulvermacher, 194, Regent-street, London, W., will send you their pamphlet free on application. 2. About twenty or thirty.

G. FAIRBAIRN.—Try the following gargle: Tannin, one drachm; camphorated water, six ounces. Internally, take the Fer Bravais, fifteen drops, thrice daily.

G. S.—Avoid constipation (see advice given to "S. E. F." in the present number), and use simple injections of tepid water thrice daily, to which a very little permanganate of potash has been added—sufficient to tint the water of a delicate pink colour.

JIM.—The only plan is to use paint for the black eyes, which may be made as follows:—A mixture of bismuth, two parts; and talc, one part; coloured with Armenian bole or calamine to the skin-tint. Apply to the part dry. The part, however, should previously be washed with a mixture of glycerine, one part; and water, five parts.

E. G. RAYNOR.—Take twenty drops of Cascara Cordial, once or twice daily, an hour before your food, in water; and when digestive action has thereby been induced, follow up and aid your cure by taking Scott's Midlothian Oat Flour, stewed fruits (apples and prunes), corn-flour, and like dietary.

EDWARD BAYNE.—Apply the following ointment night and morning: Resorcin, one drachm; lanoline, vaseline, zinc oxide, and powdered starch, of each two drachms. Mix, to form a paste.

A. CAND.—Try the following recipe: Liquor ammonia (strong); chloroform and oil of jasmine, of each half an ounce; castor oil, half a drachm; spirits of rosemary, to make up four ounces. To be kept in a stoppered bottle and labelled: "A little to be carefully rubbed into the hair in the morning." Use, also, a little of an ointment composed of lanolin, two drachms; and oil of jasmine, half a drachm. Rub this into the parts at night, so as to prepare them for the lotion in the morning.

A. RAE.—Try the following pill: Extract of aloes, eighteen grains; sulphate of quinine, twelve grains; pil. hydrargyri, six grains; extract of rhubarb, eighteen grains. Mix, and make into twelve pills; one to be taken daily about midday.

Tired Brain

Horsford's Acid Phosphate,

A brain food. It increases the capacity for mental labour, and acts as a general tonic. It rests the tired brain, and imparts thereto new life and energy.

Dr. ED. T. JOHNSON, M.R.C.S., 121, Rice-lane, Walton, Liverpool, says: "I have used it with very good results in cases of overtaxed and overworked brains, one in particular, a schoolmaster, where it acted like a charm."

Dr. JNO. LAMBE, M.R.C.S., West Villa, Shurdington, No. Cheltenham, says: "It produced good results in sick headache and brain prostration, tranquillizing the irritation, giving comfortable sleep."

Descriptive pamphlet post-free on application to
Rumford Chemical Works,
Providence, R.I., U.S.A.

Beware of Substitutes and Imitations.

CAUTION.—Be sure the word "Horsford's" is printed on the label. All others are spurious. Never sold in bulk.

CANTOR.—Brush the hair regularly night and morning with a soft brush, and rub in a little of the following to the roots each morning: Eau de Cologne, two ounces; tincture of cantharides, two drachms; oil of rosemary and oil of lavender, of each ten drops. Mix. Label: "The hair lotion."

GEORGE S.—Take a pill composed of two grains sulphate of quinine an hour before dinner daily.

ALBERT F.—Read the pamphlet, "A Lecture to Young Men" (5th edition, post free, for 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.), and follow out its instructions as to diet.

BRIXTON.—Take the following as a likely preventive of boils: Sulphide of calcium, twenty-four grains; sugar of milk, half an ounce. Mix well. Keep in a stoppered bottle, and take as much as will cover a sixpence every four hours.

SELIM.—Read the pamphlet, "A Lecture to Young Men" (post free, for 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.) and you will find full information in its pages.

C. B. A.—Take a dose of Lamplough's Pyretic Saline in the morning occasionally.

C. ALDERSON.—A hair-wash which is not greasy in its nature may be made as follows: Glycerine, four ounces; tinct. cantharides, four drachms; liquor ammonia, four drachms; rose water, concd., two ounces; bay rum, ten ounces.

NORAH.—Use an eye lotion made by adding one grain of the sulpho-carbolate of zinc to an ounce of rose water. Dilute at first with an equal part of tepid water.

A. GLASGOW.—Take the following: Citrate of iron and ammonia, one drachm; syrup of orange-peel, half an ounce; water, eight ounces. Mix. Label: "Two tablespoonfuls to be taken, thrice daily, before food."

KALDA.—For skin irritation, use the following lotion to be applied to the parts: Powdered calamine, two drachms; powdered oxide of zinc, one drachm; glycerine, one drachm; camphor water, to make up six ounces.

K. L. S.—Wash with Vinolia Soap, and apply Vinolia itself as an ointment to the parts night and morning. Use tepid water for washing.

M. E.—Read the pamphlet, "A Lecture to Young Men" (post free, for 1s. 1d., from Mr. Renshaw, 356, Strand, London W.C.), and follow out its rules as to diet and exercise. You should wear a suspensory bandage for a time, and sponge the parts with cold or tepid water night and morning. You suffer from no disease, so beware of quacks, who prey upon cases like yours.

REST.—Try the stoves of the London Fire Appliance Co., 66, Queen Victoria-street, London, E.C. They are good stoves, and give no smell.

EGBERT.—Take a teaspoonful of Inman's Syrup of the Hypophosphites (advertised in our pages) in a wineglass of water, thrice daily, after your food, and take a tepid sponge bath each morning.

CAXTON.—The habit of washing your head daily is utterly wrong, and to this you may ascribe your hair-weakness. Wash the head with Bayley's Spermaceti Soap once every ten days only. Keep your hair short, and avoid all hard brushes and small combs.

E. HOLE.—Try Dahl's Cakes, and take a Cascara Tabloid or two (Messrs. Burroughs, Wellcome & Co.'s). Take Grant's Oat Flour in place of tea and coffee, night and morning.

A. S. M.—Try the Dioxide of Manganese Tabloids (made by Burroughs, Wellcome & Co.), to be had from any druggist. Take two of these tabloids as directed on the bottle, after food, twice daily, for three or four days before the period you name.

G. F. LESLIE.—Press out the blackheads fully, and then sponge the skin with Bayley's Eau de Cologne or Toilet Vinegar and water. Look to the state of your skin, and see that you take warm baths occasionally, to favour the action of the sweat-glands.

ALMOR.—Read the pamphlet, "A Lecture to Young Men" (post free, for 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.), and attend to the directions there given.

IMPORTANT LETTER FROM THE REV. WM. JOHN EDGE.

"Upper Tooting, S.W., May 25th, 1889.

"Gentlemen,—Having for some three years or more suffered from sciatica, which at length became almost intolerable, I was advised to purchase one of Mr. Harness' Electropathic Belts on the 16th of August last, which, from that day forward, I have persistently worn without intermission except at night. The sciatica has left me, and not only has never returned, but I may say with truth that, so far as my feelings are concerned, I am not conscious of the existence of a sciatica nerve!

"This deliverance from almost perpetual pain, which at times amounted to torture, I cannot but ascribe to your Electropathic Belt, and I feel bound thus to give public expression to my gratitude.—I am, Gentlemen, very faithfully yours,

"(Rev.) WILLIAM JOHN EDGE,
"Late Vicar of Holy Trinity, Upper Tooting, S.W.
"To the Medical Battery Co. (Limited), 52, Oxford-street, London, W."

Descriptive Illustrated Pamphlet may be obtained free of charge, either personally or by letter on application to the Medical Battery Co. (Limited), 52, Oxford-street, London, W. All communications are regarded as strictly private and confidential, and should be addressed to Mr. C. B. HARNESS, the President of the Company. Consultation free.

BUNTER'S NERVINE

Cures TOOTHACHE Instantly.

Prevents Decay. Saves Extraction. Sleepless Nights Prevented. Neuralgic Headaches and all Nerve Pains removed.

DR. ANDREW WILSON, F.R.S.E., &c., writing in *Health*, says: "'BUNTER'S NERVINE' has stood the most severe test. For many years it has been the favourite household Remedy for TOOTHACHE and kindred ailments of NEURALGIC character. It contains nothing of a deleterious nature, and should claim an honoured place in every family medicine chest."

BUNTER'S NERVINE. Sold by all Chemists, 1/1½.

BUNTER'S DENTINE

IS THE MOST SIMPLE AND
PERMANENT STOPPING for DECAYED TEETH.

Any one can easily prepare and place it in the cavity of the Tooth in a soft state, and in a short time it becomes a perfectly hard and white Enamel, forming, as it were, a part of the original substance of the Tooth.

All Chemists, 1/6. *Post Free*, 19 *Stamps, by Proprietor.*

PURILINE

Tooth Polish

Will Purify and Beautify the Teeth with a Pearly Whiteness; Polish the Enamel; Destroy Tartar and all Living Germs; and Keep the Mouth in a Delicious Condition of Comfort, Health, Purity, and Fragrance. It is not a Powder or Soft Paste that will scatter over clothing and soil the toilet, but a Dental Paste of stiff consistency, non-gritty, and Absolutely Pure. May be carried in the pocket in any climate of the world, without injury or losing its virtues.

Price 1/- *Sold by Chemists, Perfumers, &c., or sent post free by Proprietor.*

PURILINE

Tooth Wash

FOR THE TEETH, GUMS, AND BREATH.

A PURE, PERFECT, AND REFRESHING FLUID DENTIFRICE.

A few drops in water used daily will thoroughly Cleanse, Beautify, and Preserve the Teeth; Polish the Enamel, prevent Tartar, Destroy all living "Animalculæ." It is Absolutely Pure and Harmless to the Youngest child or most delicate constitution.

Sold by all Chemists, Perfumers, &c., 1/- per Bottle, or sent post free by Proprietor,

Proprietor: ALFRED WILSON, 422, Clapham-road, London, S.W.

No BATH-ROOM is fully Furnished without a CORK MAT.

Rankin's Cork Mats.

COMFORTABLE TO THE FEET IN STEPPING FROM THE BATH.

Of Solid Corkwood. Warmer than any other material.

SUPERIOR TO ALL OTHERS.

Recommended by the Medical Profession. They prevent Chills, and make Bathing a Luxury.

Prices 3s., 5s., and 7s. 6d., free; Extra Sizes, 10s. 6d., 12s. 6d., 15s., of all Furnishing Houses, Chemists, &c.

WILLIAM RANKIN & SONS,

CORK IMPORTERS, GLASGOW and LISBON.

GRACE, HEALTH, and FREEDOM from Corsets or Suspenders.

FOR GENTLEMEN, 5s.

FOR LADIES 4s. 6d.

THE MACKINTOSH PATENT

Epaulet Brace

Draws the shoulders *backward*, enlarging the bust, and leaving the sides *free*. It therefore improves the **DIGESTION, HEALTH,** and **FIGURE.** The Belt supports trousers or petticoats, and a cord in the epaulet regulates the size.—"*This Brace is constructed on sensible principles. . . . I recommend this appliance, one feature of which is its entire simplicity.*"—HEALTH. Sent Post Free, on receipt of Price, by

MACKINTOSH & Co., 7, CROSS-STREET, DYSART, N.B.

"*No Brace can be made more agreeable and effective.*"

ONE BOX

OF

CLARKE'S B41 PILLS

IS WARRANTED TO CURE

All ailments of the Urinary Organs (acquired or constitutional), Gravel, and Pains in the Back.

GUARANTEED FREE FROM MERCURY.

Sold in Boxes, 4s. 6d each, by all Chemists and Patent Medicine Vendors throughout the World; or sent to any address for sixty stamps by the Makers,

THE LINCOLN AND MIDLAND COUNTIES DRUG COMPANY, LINCOLN.

Wholesale Agents: BARCLAY & SONS, London and all the Wholesale Houses.

General Nursing Institute,

5 & 4, HENRIETTA-STREET,

COVENT GARDEN, LONDON, W.C.

Established 1862. Solely under Medical Direction.

HOSPITAL TRAINED NURSES for every description of disease—MEDICAL, SURGICAL, MENTAL, and MIDWIFERY—can be obtained at this Institute on application to the Secretary or Lady Superintendent at a moment's notice, being resident in the Home.

MALE ATTENDANTS and NURSES specially for FEVER cases.

Telegraphic Address, "Nursing Institute, London."

BLAUD'S PILLS.

Prepared in strict accordance with Dr. Blaud's recipe, and prescribed throughout the world for ANÆMIA, &c.

Messrs. INMAN & Co. devote great care to the making of these Pills, and they direct attention to the importance of their being fresh, and properly made if the full benefit is to be derived from taking them. A Box containing twelve dozen sent post free on receipt of Fourteen Penny Stamps.

WILLIAM INMAN & CO., Ltd., Chemists,

8, SHANDWICK-PLACE, EDINBURGH.

Works by Dr. ANDREW WILSON, F.R.S.E.

CHAPTERS ON EVOLUTION: A Popular History of Darwinian and Allied Theories of Development. Third Edition. Crown 8vo, cloth extra, with 259 Illustrations, 7s. 6d.

LEISURE-TIME STUDIES, chiefly Biological. Third Edition, with New Preface, Crown 8vo, cloth extra, with Illustrations, 6s.

COMMON ACCIDENTS, AND HOW TO TREAT THEM. By DR. ANDREW WILSON and others. With numerous Illustrations. Crown 8vo, 1s.; cloth limp, 1s. 9d.

LONDON:

CHATTO & WINDUS, 214, Piccadilly, W.

A WONDERFUL MEDICINE.

BEECHAM'S PILLS

BEECHAM'S PATENT PILLS. ST. HELENS LANCASHIRE

ARE universally admitted to be worth a Guinea a Box for Bilious and Nervous Disorders, such as Wind and Pain in the Stomach, Sick Headache, Giddiness, Fullness and Swelling after Meals, Dizziness and Drowsiness, Cold Chills, Flushings of Heat, Loss of Appetite, Shortness of Breath, Costiveness, Scurvy and Blotches on the Skin, Disturbed Sleep, Frightful Dreams, and all Nervous and Trembling Sensations, &c. The first dose will give relief in twenty minutes.

Every sufferer is earnestly invited to try one box of these Pills and they will be acknowledged to be

WORTH A GUINEA A BOX.

For females of all ages these Pills are invaluable, as a few doses of them carry off all humours, and bring about all that is required. No female should be without them. There is no medicine to be found equal to Beecham's Pills for removing any obstruction or irregularity of the system. If taken according to the directions given with each box they will soon restore females of all ages to sound and robust health. This has been proved by thousands who have tried them, and found the benefits which are ensured by their use.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like magic, and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long lost complexion, bring back the keen edge of appetite, and arouse into action with the rosebud of health the whole physical energy of the human frame. These are FACTS testified continually by members of all classes of society; and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS *have the Largest Sale of any Patent Medicine in the world.*

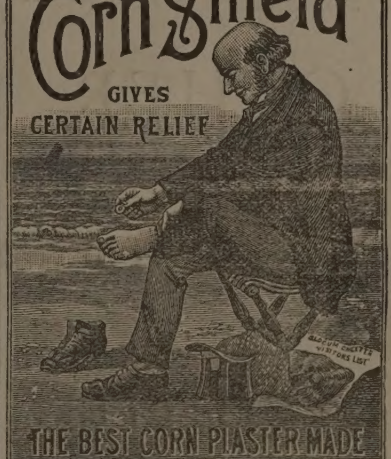
Prepared only and Sold Wholesale and Retail by the proprietor, THOMAS BEECHAM, St. Helens, Lancashire, in boxes at 1s. 1½d. and 2s. 9d. each.

Sold by all Druggists and Patent Medicine Dealers everywhere.

N.B.—Full directions are given with each box.

ALLCOCK'S Corn Shield

GIVES CERTAIN RELIEF



THE BEST CORN PLASTER MADE

TOO FAT.

DR. GORDON'S Elegant Pills

Cure STOUTNESS rapidly and certainly. State height, weight, and send 2/9, 4/6, or 11/-, to

Dr. Gordon, 10, Brunswick Square, London, W.C.

THE

BEST and CHEAPEST BEVERAGE

in Existence is

VAN HOUTEN'S COCOA

Rich yet Digestible

Stimulating yet Sustaining

SAVING WHAT

OTHER PROCESSES WASTE

developing the

DELICIOUS FLAVOR and AROMA

and forming a

DRINK FOR A PRINCE

at less than a farthing a cup.

Printed for the Proprietor by HENDERSON & SPALDING, at 3 and 5, Marylebone-lane, Oxford-street, in the Parish of Marylebone, in the County of Middlesex, and Published by ALEXANDER P. WATT, at No. 2, Paternoster-square, London, E.C.